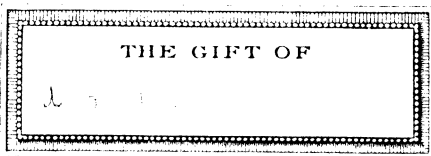
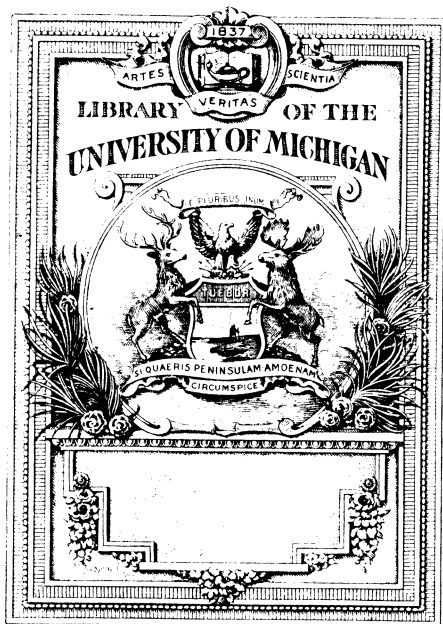


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U.S. Gen. Staff, Second Section.
WAR DEPARTMENT :: OFFICE OF THE CHIEF OF STAFF

Second Section, General Staff, No. 16

ROAD NOTES

CUBA - - - 1909



WASHINGTON :: GOVERNMENT PRINTING OFFICE :: 1909

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Document No. 349.
Office of the Chief of Staff.

INTRODUCTORY NOTE.

These road notes were made by the various intelligence officers of the Army of Cuban Pacification during the winter of 1906-7, a remarkably dry season. The notes were afterwards compiled in the Military Information Division, Army of Cuban Pacification. The plan was formulated in said division and carried to completion under the supervision of the commanding generals of that army. The compilation of the notes was prepared by Capt. John W. Wright, Seventeenth Infantry, who was in charge of the Military Information Division, Army of Cuban Pacification, November 23, 1908, to April 1, 1909. Whenever practicable, continuous road notes have been made. In some instances it was necessary to reverse the notes submitted in order to do this. These notes were made independently of the Military Map of Cuba, 1906-1909, and some differences will be noted between the road notes and map; but it is thought that they will serve as additional data and, to some extent, a check on the map. Notes on roads and trails in the Ciénaga de Zapata will be found in Military Notes on Cuba. To find the notes on any given road, obtain its number on the provincial map-index and look for the corresponding number among the road notes of that province. Circles around a number on a map-index indicate the starting point on the road note. The numbers designating roads when they reach 99 are continued as 1x, 2x, 3x, etc.

Don Esteban Pichardo has been accepted as authority for the spelling of Spanish names.

Description of settlements and figures of populations thereof are omitted, as they will be found in Military Notes on Cuba.

Where roads have been macadamized since the taking of these notes, that fact will be found noted at the beginning of the descriptions.

LIST OF SPANISH AND INDIAN WORDS.

Almacen.....	Warehouse.
Algodonar.....	A finca devoted to raising cotton.
Andarivel.....	A ferry.
Arroyo.....	Small stream; creek.
Arrobe.....	Twenty-five pounds.
Asiento.....	The center of a hato, corral, or plantation.
Azotea.....	A walled and paved flat roof which could be utilized for additional floor space by erecting temporary shelter.
Babiney.....	A low country, swampy during rains.
Barracon.....	Buildings constructed on plantations to quarter laborers.
Barrio.....	Subdivision of a township.
Batey.....	The yard surrounding a sugar mill and usually inclosed by a fence or wall.
Bodega.....	A store selling provisions.
Bohío (bogio).....	A shack made of palm leaves.
Boyero.....	A corral for oxen.
Caballeria.....	A tract of land, 33 $\frac{1}{3}$ acres.
Cacagual.....	Cocoa plantation.
Cafetal.....	Coffee plantation.
Cala.....	Cove; a small bay.
Caleta.....	A small cala.
Calle.....	Street.
Calzada.....	A first-class telford or macadam road.
Cañada.....	A wet-weather stream.
Cantina.....	A store where liquor and provisions are sold.
Carretera.....	High road; pike.
Ceja.....	Small crescent-shaped piece of woods.
Central.....	A large sugar mill grinding its own cane and that which is raised on adjoining colonias.
Cerro.....	A craggy mountain.
Ciego.....	Name applied to a territory that is so covered with undergrowth that sight is obstructed.
Cimarron.....	A runaway slave.
Cocal.....	A cocoa plantation.
Colonia.....	A farm devoted to the growing of sugar cane.
Colonio.....	The owner or renter of a colonia.
Cordel.....	Twenty-four yards.
Corral.....	A plantation, round in shape, with radius of 1 league; usually devoted to cattle raising.
Cuartel.....	Barracks.
Cuchillas.....	Knives; meaning blade-like elevations, when term is used geographically.
Diente de perro.....	Sharp-pointed limestone rocks, over which passage is difficult.
Embarcadero.....	A shipping point.
Encrucijada.....	A cross road.
Ensenada.....	A small arm of the sea, more open and smaller than a bay.
Estancia.....	A small farm devoted to raising garden products.
Estero.....	Mouth of creek flowing into sea.

Farallon.....	Small rocky island.
Finca.....	Farm.
Furnia.....	A deep depression in the earth.
Guano.....	Dry palm leaves, used to roof shacks.
Hacienda.....	Plantation; also used as a term for landed property in general.
Hato.....	A grant of public land, circular in shape, with radius of 2 leagues; usually devoted to the raising of cattle.
Itabo.....	Low ground, with springs and water courses.
Ingenio.....	Sugar mill grinding cane from its own lands.
Kilometer.....	Sixty-two one-hundredths of a mile.
Laguna.....	Lagoon.
Loma.....	An oblong hill.
Mangle.....	Mangrove.
Manglar.....	Ground covered with mangrove trees; usually swampy.
Manigua.....	Ground covered with small, thick growth. This name is also used in western Cuba for the country.
Merced.....	Name applied to a class of public-land grants.
Mesa.....	A truncated cone-shaped elevation.
Mogote.....	An isolated flat-topped hill.
Monte.....	In Cuba this term signifies woods or unpopulated territory with small growth. If the territory is extensive it is called monte firme. It is also synonymous with the country in eastern Cuba.
Palenque.....	A place of difficult access, where runaway slaves would gather.
Pan.....	Used geographically as a sugar-loaf mountain.
Paso.....	Name given to points along streams where there are frequently used fords.
Pico.....	Peak.
Playa.....	A sandy beach.
Potrero.....	A cattle ranch or farm with land devoted to grazing.
Quintal.....	One hundred pounds.
Rancho.....	An isolated palm shack.
Realengo.....	Land not included in grants; property of the State.
Sabana.....	A flat table-land with but little vegetation.
Sabanalamar.....	A low flat tract of coast, without vegetation.
Salto.....	Cascade.
Sao.....	Woods.
Siguanea.....	A swamp along the coast.
Seboruco.....	Sharp, porous rock (limestone).
Sierra.....	A mountain ridge.
Sitio.....	A small farm with a few inhabitants, or a very small village or community.
Sumidero.....	The point where a stream disappears underground. A drain.
Tetas.....	Used geographically as designating nipple-shaped hills.
Tienda.....	Store.
Tierradentro.....	The interior of the island.
Vega.....	Tobacco farm.
Villas, las.....	A name commonly given to Santa Clara Province. The city of Santa Clara is frequently called Villaclara.
Vuelta abajo.....	All territory in Cuba from Havana Province west, inclusive.
Vuelta arriba.....	All territory in Cuba east of Havana Province.
Zafra.....	The sugar crop; also used to designate the season when the sugar crop is gathered; harvest.
Zanja.....	A canal or stream emptying into the sea; a ditch.

PROVINCE OF PINAR DEL RÍO.

ROAD No. 1.

CAIMITO—GUANAJAY—ARTEMISA—SAN CRISTÓBAL—PASO REAL DE SAN DIEGO—PINAR DEL RÍO—SAN JUAN Y MARTÍNEZ—GUANE—GUADIANA.

General direction, W. Distance, 151 miles.

NOTE.—During 1908 a metaled road was constructed connecting San Cristóbal and Santa Cruz, and this road is being continued to Pinar del Río.

IN GENERAL.

1. From Caimito to Guanajay is an excellent macadam road.
2. From Guanajay to Artemisa is a calzada. Three wagons can travel abreast; no grades; country level.
3. From Artemisa to San Cristóbal is a macadam road wide enough for three wagons to drive abreast. Road is lined by wire fences and continues over level uncultivated country (good grazing) as far as Candelaria; from there country is more cultivated.
4. From San Cristóbal to Los Palacios is a good dirt road over rolling and well-cultivated country, passable for carts and light-loaded wagons in dry season and for cavalry in rainy season.
5. From Los Palacios to Paso Real is a good dirt road over level country, passable for all kinds of wheeled transportation in dry season and for horses during rainy season.
6. From Paso Real to Pinar del Río is a dirt road, suitable for wagons in the dry season and with fords that can be crossed only by extra teams.
7. From Pinar del Río to San Juan y Martínez a single-wire telephone line follows the road. The road is good for army wagons in the dry season, but during the rains there are mud holes. Good camping places with grazing are available near streams. In the rainy season the destruction of bridges would probably cause delay to troops, as these streams form serious obstacles in times of freshets.
8. From San Juan y Martínez to Guadiana.—There is a masonry bridge at the edge of San Juan; bridge is 20 feet wide, spanning a stream with a sandy bottom.

About 3 miles before entering Guane the route is hilly and road rocky and steep in places; passable at all seasons.

This portion of the road is passable throughout for escort wagons. In the dry season, with 2,000 pounds, very little difficulty is experienced. A wagon train of five wagons went from Vivero, 1 mile north of San Juan y Martínez, to Guane on December 15, 1906, between the hours of 6.30 a. m. and 8 p. m., a distance of 25 miles. A telegraph line (single wire) follows the road from San Juan y Martínez to Guane.

IN DETAIL.

Miles from Cai- Just beyond Caimito a ridge of rocks called Sierra de
mito. Anafe comes down to road on the right, the latter following its base. This ridge grows more rocky and rugged, is covered with brush, is uncultivated, and without inhabitants. In front rises a palisade of white rock—a conspicuous landmark marking the Habana calzada in the vicinity of Caimito—which is plainly visible from Guanajay. This rock rises perhaps 100 feet above road. To the left, low, rounded, cultivated hills.

Many houses along road. Less than 1 mile from Caimito road passes on left of mill of a large sugar estate. Wire fences now and then; stone walls frequent; but in dry weather cavalry could pass over the country to left. To right the range of steep rugged hills, often perpendicular rock, with odd entrances to caves marking their faces, lies nearly parallel to road and probably 400 or 500 yards distant. Hills wild and thickly overgrown with brush. Road gradually but steadily ascending, undulating as it runs directly toward high white rock mentioned. Road a magnificent highway; not dusty or muddy, and wide enough for three wagons to pass abreast. Before reaching 37-kilometer post road ascends a somewhat steep hill, and passes through a cut in the top, whose walls are 10 or 15 feet high. To left country open, cultivated, and rolling. This hill commands road toward Caimito and Habana and to some extent that toward Guanajay, but in that direction the road runs over more of a plateau, to which it ascends by the hill mentioned.

- 3.2** Road passes some 400 yards from the base of white rock mentioned, which can be seen from the northeast. From this point ridge on right falls away, running more toward gulf coast, and leaving a brown, lumpy plateau between itself and road. Country on both sides is more open and cultivated.

Another large sugar mill about 400 yards to right of road. Ridge mentioned continues to trend off more to right—that is, about north. Road now slightly descending, but undulating over the many hills of this broken region. Between 38 and 39 kilometers, and at foot of a long slope, on whose top is the 39-kilometer post, road crosses a little stone culvert, spanning a very small stream; merely a low place. This about 4.5 miles from Caimito. Beyond the top of this hill, road descends a little and country continues of same character. At about 5 miles from Caimito, road passes a little brick bridge over another very small stream or pool, and just beyond, at 40-kilometer post, another, over a little stream of apparently good water. Country on each side open and rolling, cultivated with cane and tobacco. No fences now; country good for cavalry maneuvers. Far away in advance, a little to left, low mountains, continuing on through the Vuelta Abajo, probably 25 or 30 miles away. At 41-kilometer post, a "sitiería," one of the suburbs of Guanajay, which lies about 1 mile in advance, in a sort of hollow, formed by low hills that generally surround the town. These hills are cleared, rounded, and cultivated. Pass locations of old ingenios San Gabriel de Herrera and Jesús Nazareno.

Just before reaching Guanajay road passes over small stone bridge spanning an almost dry creek bed, Arroyo Jíbaro, and enters a long street that runs to plaza of Guanajay. Continuing through town, highway crosses stream by small wooden bridge, and just beyond, on outskirts of Guanajay, divides, the left road being main calzada leading to Artemisa, San Cristóbal, and Pinar del Río, the right branch continuing for 100 yards along stream, then turning to left and proceeding to Mariel. This is called a calzada of the second order.

Leaving Mártires street the road turns southwest over what is called Maceo street and crosses the Habana Central Railway at edge of town. A dirt road leads off to the west and passes cemetery, turns south for a short distance, then east again, and connects with the Mendive-Cayajabos road about 1.7 miles out.

Calzada continues southwest. Dirt road branches off to east and west; west road to Cayajabos. It connects with branch described above about 0.7 mile from the calzada. East road continues east for only a few yards, then turns south. Trail, however, continues east and

Miles from Cai- crosses railroad track of United Railroads of Habana, and
mito. connects with north and south road 1 mile from calzada.

The north road leads to the correctional school reservation, and the south road goes to Ceiba del Agua.

Going back to where the main dirt road leaves the calzada and turns south, it continues south for 1.5 miles, where it connects with an east and west road; the west road comes from the calzada about 0.5 mile away, and the east road continues east for a little over 1 mile, where it connects with the Ceiba del Agua road. This road is passable for carts the entire distance during the dry season, and for cavalry and infantry during the wet season. The calzada continues southwest over level country.

10.7 Dirt road passable for carts branches off to the northwest and connects with the Mendive-Cayajabos road, a little over 0.5 mile beyond.

11.4 Calzada turns south by west and 0.2 mile beyond is Cayados.

11.7 At this point a dirt road, passable for carts in dry season, branches off southwest and at finca Hevia, 1.5 miles distant, crosses east and west dirt road; turns south for 0.5 mile, then zigzags south and southwest for 1.2 miles when it crosses the old Cayajabos road, continues south for a little over 0.2 mile to finca Conde de la Reunión, where it turns west for 0.7 mile, where another dirt road comes in from the north, then south and circling to the southwest to central El Pilar, 1.2 miles distant. The total distance from Cayados is 5.5 miles over level country, the greater portion covered with sugar cane and tobacco; road passable for carts in dry season, infantry and cavalry and pack trains in wet season. The calzada continues a little west of south through level country.

12.2 Dirt road runs to left and 0.2 mile beyond runs into the central El Pilar road.

12.4 Another dirt road branches to the west, 0.7 mile from the calzada, crossing the central El Pilar road and continuing west for 0.5 mile farther turns northwest; 0.5 mile beyond crosses Lima River (10 feet wide and 1 foot deep in dry season, gravel bottom, low and muddy banks). Skirts alongside of small lake and swamp for 1 mile, then rising to higher ground continues on to Mendive, where it connects with the Cayajabos road. Total distance from the calzada about 3.7 miles. Carts can be taken over this road in the dry season; impassable for anything but dismounted troops in the rainy season. Just after cross-

ing the Lima River a rock road with stone fences leads to the south for 1.5 miles, where it connects with an east and west road, stone fences, and rock base. This is the old Cayajabos road. Miles from Cai-
mito.

Dirt road runs off to the east from Capote to Loma, which is 2.7 miles distant. 12.9

Calzada turns more to the southwest. At this point old road, very rocky with stone fences, branches south to Puerta de la Güira. 13.4

Calzada continues southwest to where an old rock road, lined on both sides by stone fences, branches west. This is the old Cayajabos road. At 0.7 mile another rock road branches north. The main road continues west 1.5 miles, then turns south; at this point a dirt road continues west. The calzada continues southwest to El Pitirre. Here dirt road crosses. 13.9

Calzada crosses railroad track which runs to central El Pilar. At this point a calzada branches off northwest 1.2 miles to central El Pilar. The calzada crosses the old road coming down from El Pitirre. 16.9

Artemisa. Road starts out southwest from Artemisa in continuation of calle Maceo. 17.9

Crosses railroad track. 18.2

Crosses a small stone culvert over an arroyo flowing into Arroyo Limones. At the 59-kilometer post a dirt road leaves it northwest, continues in that direction about 1.5 miles and connects with the Artemisa-Cayajabos calzada about 1 mile west of Artemisa. The dirt road running southeast continues for about 0.7 mile, where it connects with a road running northeast and southwest; this road runs southwest for 1 mile and ends at finca San Francisco; the one northeast continues in that direction for 1 mile, where it connects with dirt road to Artemisa at a point about 0.7 mile southeast of it. The calzada continues southwest. 19.2

A dirt road runs off 1 mile south over pasture land, where it connects with dirt road running northeast and southwest, described above. 19.7

Portugués (1 schoolhouse). At this point dirt roads leave the calzada north and southeast. Road north practicable for carts in dry season. It runs north for 0.5 mile and branches, one branch continues north for 1.7 miles to the Artemisa-Cayajabos calzada about 2 miles west of Artemisa; the other branch turns to the northwest for 0.5 mile, then west 1 mile to the town of Pijirigua; 20.7

Miles from Cai- this road continues on west 0.2 mile to Las Mangas
mito. station on the Western Railway. Just before reaching
Pijirigua there are several dirt roads which join the main
road, but these roads simply circle around through the
cane fields. The dirt road southeast from Portugués,
passable for cavalry in the dry season, continues over
level, uncultivated land 4 miles, where road connects with
what is known as the south coast road at finca La Tierra.
At 1 mile north of La Tierra a branch road runs east 0.7
mile, where it connects with road running west of north to
Artemisa and on the southeast with the south coast road.
At a point 2 miles southeast of Portugués another dirt
road, practicable for bull carts in the dry season, turns off
southwest for 2 miles, where it connects with dirt road
running northwest to Las Mangas on the calzada; at the
point where these two roads join a trail runs south 0.2
mile to finca Fréire, which is at the end of the south coast
road. The calzada continues southwest past the Laguna
de la Canao on north side of road (lake is about 0.5 mile
long by 0.1 mile wide; good camping places for a brigade
of troops during the dry season; grazing, water, and wood
plentiful). There is another small lake a short distance
beyond called Laguna de la Ceiba.

21.7 The calzada curves slightly around one side of lake,
then continues southwest.

22.7 Las Mangas de Río Grande. Besides the road men-
tioned above, which runs southeast from Las Mangas to
finca Fréire, there is a trail running north 1 mile, where it
broadens into a cart road and continues north 1 mile to
Las Mangas station and from there 2 miles north, where it
connects with the Artemisa-Cayajabos calzada at a point
about 3.5 miles from Artemisa. Las Mangas is located
on slightly higher ground than the surrounding country,
and the old walled cemetery and church would afford
good protection against infantry fire. Finca Robáina,
where a dirt road runs south for 0.2 mile, then south-
west between two small lakes for 1 mile, where road
dwindles into a trail which continues southwest to wooden
bridge crossing the Crespo River to finca Guana (river
10 feet wide, high banks, mud bottom, bridge 15 feet
long, and sufficiently wide for one wagon). Road con-
tinues 0.5 mile southwest to Jícara River. This river is
practically a swamp, and road crossing it on each side
is corduroyed. From this point trail continues south-
west about 5 miles to finca El Corojal. Road and trail

impassable in the wet season. Calzada continues south-
west over uncultivated country. Miles from Cai-
mito.

Turns west.

23.9

Pueblo Nuevo. From Pueblo Nuevo a dirt road
passable for bull carts in the dry season, for horses in
rainy season, runs north 1 mile, where road branches
west to Punta Brava station of the Western Railway, 2
miles distant. The main road continues through the
finca Punta Brava and continues on east of north to Las
Mangas station, a total distance from Pueblo Nuevo of
about 4.2 miles. Another dirt road runs south from
Pueblo Nuevo to Embarcadero de Coroal on the south
coast. The calzada continues west, crosses a stone
bridge (30-foot span) over Río San Juan.

25.7

Dirt road branches to the north 2 miles to finca Buena
Ventura, where it crosses the railroad and turns east and
continues about 1.5 miles to Punta Brava station. Cal-
zada continues west, crossing three stone bridges over dry
runs.

28.9

Crosses stone bridge (40-foot span) across the branch of
the San Juan River. Road crosses three more stone
bridges across dry runs, to where another stone bridge
crosses the Bayate River (80-foot span).

29.2

A road branches south for 1.5 miles, where it connects
with another dirt road from Candelaria. Road continues
south 3 miles over good grazing country to point where
road dwindles into a trail. This trail runs through finca
Berrendos, 0.5 mile from where road ends, continues
south, crosses Río Santo Domingo 2 miles further south,
and continues along the west bank of same river to the
finca Rincón Hondo, 1.5 miles distant. From this point
the trail continues south along west bank of river 5 miles
to finca Canton. This road is practicable for bull carts
and trail for horses during the dry season, but impassable
in rainy season. The calzada continues west.

29.7

Crosses the railroad.

31.2

Candelaria. From Candelaria the calzada continues
west.

31.4

Dirt roads branch north and south; another runs north
1.2 miles to the finca San José, and dwindles into a trail
which divides 0.2 mile west, one trail northwest running
to El Brujo, via fincas Flora and Pluma; the trail north
continues for 0.2 mile where it divides, one to the north-
west running up the valley of the Manantiales River past
finca Frías, the Sarao Baths (now a ruin), to finca Sarao

31.7

Miles from Cal-
mito. and San Blas. The other trail continues north into the mountains, following the course of the Bayate River, through finca Descubierta, Santa Catalina, and La Rita, where trail divides, one east through Casa Blanca, Santa Paula, Gardenia, Barbón, and into Cayajabos. Another trail continues north through finca Ceiba and on to Bahía Honda, and another runs west through Cuzco, Casa Dolores, and El Tumbo. These are all good mountain trails passable for pack trains. Road running south from the calzada connects with the road from Candelaria to Sabanalamar 1.5 miles south. The calzada continues west, crossing a stone bridge over a dry run.

32.4 Crosses another stone bridge (40-foot span) across the Río Santo Domingo (about 20 feet wide, high banks). At this point the calzada turns southwest.

33.9 Calzada turns west and a short distance beyond crosses a stone bridge across the Yaguasas River (80-foot span; river about 20 feet wide, high banks). A short distance beyond calzada turns southwest.

34.7 Crosses railroad track and beyond that crosses two branches of the Río Hondo, each spanned by stone bridge 60 feet long.

35.2 Crosses track of the Western Railway. At this point dirt road (passable for bull carts in dry season, impassable in rainy season) runs south over level country for 3 miles to finca Isabel, where dirt road runs north along east bank of the San Cristóbal River to the calzada at the bridge across the San Cristóbal River, about 200 yards east of San Cristóbal. The calzada continues southwest.

37.7 Crosses the railroad. From this point calzada runs west, crosses a stone bridge (40 feet long across branch of San Cristóbal River) just beyond the railroad crossing.

38.2 Crosses iron bridge over the San Cristóbal River.

38.4 San Cristóbal. (This bridge is of iron, two spans, resting on solid masonry abutments, each span about 65 feet long; bridge 30 feet above water, river about 75 feet wide, gravel bottom, running water. There is a ford just below the bridge, water about 2 feet deep, banks cut to ford. Impossible to ford in rainy season. Both approaches to the ford lead to the calzada.) From San Cristóbal a good trail runs north leading into the mountains to the large hacienda of El Brujo. A dirt road passable for bull carts in dry season, impassable during the rainy season, runs south on the west bank of the San Cristóbal River 1 mile to finca San Cristóbal. There is a ford at this point where

branch road crosses the San Cristóbal River. The river <sup>Miles from Cai-
mito.</sup> is about 75 feet wide by 2 feet deep, gravel bottom, banks cut to ford, passable for bull carts in the dry season, impassable in rainy season. This road joins the finca Isabel-San Cristóbal road. At finca Isabel this road joins the Candelaria-Sabanalamar road. From finca San Cristóbal main road runs southwest through finca Mayarí, 1 mile beyond, and continues from there over level, uncultivated country, southwest about 3 miles to finca La Angostura. An eighth of a mile north of finca Mayarí the road from San Cristóbal crosses the San Cristóbal River (Santa Teresa branch), and the road from finca Mayarí to finca La Angostura crosses the same river again just about 0.2 mile southwest of Mayarí. The river is about 75 feet wide by 2 feet deep at both crossings, gravel bottom, banks cut to ford, impassable in rainy season. One and a half miles beyond the road crosses a branch of the San Cristóbal River, and 1 mile beyond that a small branch of the Taco Taco River, both of which are small, about 15 feet wide by 6 inches deep, gravel bottoms, mud banks, passable in dry season, impassable in rainy season. The road from finca San Cristóbal is hardly more than a trail, and would be impassable for even horses in the wet season. At finca San Cristóbal another bull-cart road runs west about 1 mile to finca Los Pinos, where one road runs north 1.5 miles to the town of San Cristóbal and another road south about 3 miles to finca La Angostura. At finca La Angostura a good cart road passable for bull carts in the dry season, impassable in the rainy season, runs west 5 miles to the town of Taco Taco on the Western Railway, crossing the Taco Taco River about 1 mile west of La Angostura (river about 30 feet wide, 2 feet deep, gravel bottom, muddy banks, cut to ford, impassable in the rainy season). From finca La Angostura a trail, passable for horses in dry season, impassable in the rainy season, runs southeast 1.7 miles, crosses the San Cristóbal River (river about 60 feet wide, 2 feet deep, gravel bottom, banks cut to ford), and continues 0.2 mile to finca Piedra, and trail continues southeast from there about 6 miles to Sabanalamar. Another trail passable for horses in the dry season, impassable in the rainy season, runs south from finca Angostura about 6 miles to finca Bacunagua Abajo, and from there a trail runs east to Sabanalamar, about 6 miles. Main road leads southwest from San Cristóbal in continuation of the main street, on north side of railroad past the cemetery.

Miles from Cai-
mito.

- A road branches west 3 miles to finca Puerto Moraio, where a trail runs north into the mountains to Bahía Honda, via finca Rosario, Vega de Morales, and Aguacate. At the cemetery another dirt road runs southeast, crosses the railroad, and continues to finca Los Pinos, 1 mile distant, and from there south to finca La Angostura. Road continues southwest on north side of railroad past a small pond, Laguna de los Pozos.
- 38.9** A trail runs west to the mountains, and at this point road turns more to the south.
- 39.9** A road branches to the west, continues for 1.5 miles to a tobacco plantation, and ends.
- 40.4** A small stream (Arroyo Matatoros), almost dry in the dry season, gravel bottom, high banks cut to ford. Road ascends slightly and continues over level ground.
- 41.4** Chirigota, a tobacco plantation. Road continues southwest. Crosses Río Grande (or Arroyo Carmona); river 40 feet wide by 2 feet deep in dry season, low banks, gravel bottom, unfordable in rainy season, good location for a camp of a brigade; wood, grazing, and water plentiful.
- 42.0** Village of Santa Cruz de los Pinos. At Santa Cruz a dirt road runs south 1 mile to the village of Taco Taco on the Western Railway. The road north of the railroad leaves Santa Cruz almost south.
- 43.2** A small stream (Arroyo Capote) which empties into a large swamp crosses the road. It is about 8 feet wide by 6 inches deep, low banks. Road rises steadily to a palm grove and descends.
- 44.9** Crosses the Taco Taco River, which is 20 feet wide by 1 foot deep, gravel bottom, high banks cut to ford, impassable during portions of the rainy season. The tobacco plantation of Progreso is located on the south bank of river. From this point road is wire fenced.
- 45.9** Finca Ceiba, where wire fence ends; road turns southwest.
- 46.2** Road branches, west branch circles to southwest and joins main road about 3 miles farther south. Road continues southwest over rolling ground.
- 47.4** Crosses dry river bed, gravel bottom, channel about 20 feet wide, high banks cut to ford.
- 47.7** Finca Atio.
- 48.9** Crosses Río Santo Domingo, 15 feet wide, 2 feet deep, running water, steep banks cut to ford. Good camp for regiment of infantry or cavalry. Road ascends slightly,

turns south a short distance, then continues southwest and ascends long slope. Miles from Cal-
mito.

Road joins from Taco Taco from the north. The road now shows signs of considerable travel. 49.9

Crosses small stream 10 feet wide by 6 inches deep, called Pinal Sucio. At this point a road branches to the west to finca La Sierra. Road turns south over level, grassy country. 51.9

Los Palacios. The Los Palacios River (or Río Macuriges) at this town is spanned by a steel bridge sufficiently wide for two wagons to pass. It has two spans with solid masonry abutments in center and on each bank; spans 50 feet long, bridge 30 feet above water. 55.2

Road crosses four stone culverts. 55.9

Small stream, 20 feet wide, 1 foot deep, running water, high banks cut to ford, gravel bottom. Regimental camp site; 100 yards south of ford stone bridge is being constructed, 40-foot spans, steel girders resting on solid masonry abutments, bridge 10 feet above banks of river. 56.7

Santa Clara, a tobacco plantation. Here there is a small stream 15 feet wide by 1 foot deep, high banks cut to ford, gravel bottom. Regimental camp site. 57.7

Ruins of old town of Paso Real de San Diego. 59.2

Paso Quemados, tienda La Campaña on left, cross roads. Road northeast by east to Palacio, road south-east by south to Paso Real. 60.9

Road on right to San Diego; on left to Paso Real. 60.6

Río San Diego, 20 feet wide, 3 feet deep, ruins on left, small ferry, practicable for two horses. 60.7

Stone ruins on left; bamboo on right. 61.4

Small shack on right. Here a road runs to Paso Quemados. 61.6

Stream 3 feet wide. (Arroyo Soledad.) 61.9

Dry bed of small stream. (Arroyo Manacas.) 63.3

Stream 3 feet wide. Crossing, a wagon here requires extra teams. (Arroyo Baracaldos.) 63.8

Small stream. (Arroyo Pilón.) 64.9

Road becomes two well-defined roads, one to the left to Paso Real, the other to the right to San Diego de Los Baños. Road here overgrown with grass. 65.3

School on right. 66.3

House on right where there is a tienda. 66.4

Tienda Herradura on right. 66.7

Macadam road being constructed on left. 66.8

Miles from Cal-
mito.

- 67.0 Río Herradura, 12 feet wide; also called Río Portugal.
- 67.8 Road on left to Herradura; water tank and windmill on right.
- 68.1 Road on right to San Diego de Los Baños.
- 68.3 Road on right to San Diego. Road on right to Las Lajas.
- 68.4 Trail crosses road.
- 69.0 Cross roads; left to Herradura, right to Las Lajas.
- 69.9 Lake on left, 0.5 mile in diameter—Laguna La Tille (or Laguna Espiritu Santo). Road on far side of lake to Herradura.
- 70.2 Cross roads; left to Santa Clara, right to Las Lajas.
- 71.3 Río Santa Clara, 8 feet wide.
- 71.4 Road on right to Las Lajas. Tienda Santa Clara on left.
- 71.9 House on right.
- 72.3 Río La Cruz, 3 feet wide.
- 72.6 Small stream.
- 73.1 Río Santa María (or Arenas), 3 feet wide. Pass through Consolación del Sur.
- 74.1 Arroyo de Las Piedras.
- 75.7 Small stream.
- 75.9 Road on left to Puerta de Golpe.
- 76.2 Road on left to Puerta de Golpe.
- 76.9 Road on right.
- 78.0 Small stone bridge over stream.
- 78.4 Road on right to Pilotos.
- 78.9 Tienda La Espolón.
- 79.2 Río Hondo, 20 feet wide, 1 foot deep; could water a squadron; steep banks; small wooden ferry, practicable for two horses at a time, used only in rainy season.
- 79.4 Stone house on left.
- 79.6 Tienda on left.
- 79.9 Small stream.
- 80.3 Small stream.
- 81.2 La Jagua; Tienda of same name, crossroads here, left to Puerta de Golpe, right to Pilotos.
- 81.4 Río Ajiconal or Los Serranos, 20 feet wide; water a troop at a time; wooden bridge, 20 by 5 yards; bad condition.
- 81.6 Tienda Ajiconal on left.
- 82.3 Crossroads, left to Ovas, right to Pilotos.
- 83.0 Trail on left at hilltop and road on right.

Tienda La Punta de San Juan on left. Stone house on the right. This place is called Ovas; trail on left to town of Las Ovas.	Miles from Cai- mito. 84.7
Tienda on right.	85.0
Tienda on right at hilltop.	86.8
Cross Río San Felipe at Paso Viejo; river also called Paso Viejo; 20 feet wide, 3 feet deep; wooden bridge 15 feet high. Crossing here difficult, banks steep and muddy.	86.9
Paso Viejo; large stone house on left.	87.0
House on left at hilltop.	88.8
Tienda La Aguadita on left.	89.1
Small stream, 3 feet wide. (Río Guamá.)	89.3
Road on right to Viñales and San José.	89.6
Enter Pinar del Río by calle Velez Cabiedes. Leaves calle Martí, passing east end of Hotel Ricardo. At outer edge of Pinar del Río passes down slope 2.5° for 300 yards and over a causeway 200 yards long, over bed of Arroyo Galiano, then rises gently for 0.5 mile.	90.2
Top of flat ridge; passes up a grade of about 5° for 50 yards before reaching top, continues level; 0.5 mile small stream, sandy bottom. Road to left to San Luis; continues up a slight grade.	91.2
Road to west front to Río Sequito; road continues level from this point.	92.2
Gentle down slope begins (dirt road good for army wagons in dry season). Surrounding country gently rolling and practically all cultivated in tobacco. Numerous tobacco barns scattered about over the country. Tienda to the left; telephone line, single wire. Wire fences on either side bearing 205° . Gentle down grade.	92.7
Bottom of slope, road changes direction, bearing 255° up a gentle slope.	93.2
Pacaramao; tiendas right and left; road crosses at right angles. Country rolling, scattering palms. Top of a commanding ridge, cultivation on both sides, but not so general as before. Changes direction bearing 200° . At this point a clump of trees and bushes on top of ridge extending from road 200 yards to right. Apparently a good water hole 800 yards to the left in low ground. Low ridge overgrown with palms and underbrush running parallel to road about 1 mile distant on left.	94.2
Top of low ridge, evidences of bad mud hole in wet season. Road to left to large finca; clumps of bushes scattered about, which offer good concealment. Road continues level.	94.7

Miles from Cal-
mito.

- Clump of brush to left (stone fence 0.5 mile long, on right side of road and parallel to it; bearing at this point about 235°). Road continues level for 400 yards, then up 3° grade. Dense bushes on right 200 yards distant and parallel to road; scattering palms, cultivation.
- 95.4** Water hole on right. Good camp site for regiment. Continues level for 500 yards, thence upgrade. Large masonry house on high hill 100 yards to left. Masonry gateway not in use; house and trees on right. Masonry building, tienda 200 yards farther on left.
- 96.2** Bearing 210° to bridge over Río Feo; wood resting on masonry abutments, 250 feet long, 50 feet high. In very bad repair; almost impassable. Brush and trees along banks. On east side of river Taironas, road to left passing tienda of Río Feo. Road to right to Río Sequito. West side tienda of Herrera 100 yards farther; wooden bridge 10 feet long 2 feet high over small drain. Signs of bad mud hole just beyond. Road to right, up west side of river; also on down river on west bank.
- 96.4** A large tienda to the left, schoolhouse to right, road to left to San Luis. From this point road turns a little more toward west and continues sandy and level for 0.7 mile, then rises to top of long commanding ridge on about 3° slope. Country well cultivated and very open. Wire fences on right.
- 97.2** Top of long ridge perpendicular to road, which commands country in both directions. Road continues straight ahead and for about 400 yards down 3° slope bearing 260° .
- 97.4** Water hole 100 yards to right. Road level to a small stream, Arroyo Trancas, just before reaching Trancas.
- 98.2** Trancas. Large masonry tienda and masonry residence on a low ridge. Numerous other houses; tobacco barns in the vicinity. Road changes direction to 205° , passes through a cut 5 or 6 feet deep, 200 yards long on ridge just beyond, then passes down a gentle slope for 500 yards, where it becomes sandy for 200 yards. At this point a road turns off to the left between wire fences on both sides. Water tank for irrigation on hill 150 yards to right of cut.
- 98.7** Bearing 240° runs up a gentle grade.
- 99.2** Passes through shallow cut 2 or 3 feet deep for 300 or 400 yards. House to left; commanding ground to left within easy rifle range, but cut forms an excellent parapet at this point. Road turns down grade same general

direction. Trail to right and left. Water hole or spring to left, about 100 yards from house. Miles from Cal-
mito

Road curves around through hollow with bushes on each side and crosses small stream, sandy bottom; no obstacle. In this vicinity cultivation not so general, but numerous tobacco barns in sight. Trail to right 400 yards farther on crosses small stream, then turns about south and passes along a hillside with high ground on right. A stone fence on left for about 0.7 mile; the road then follows the left bank of Río Seco. 99.7

Fragata. A large tienda on left; 200 yards beyond road crosses the Río Seco on a wooden bridge 40 feet long and 30 feet high and enters the Río Seco plantation of the American Tobacco Company. The crossing is known as Paso Real de Río Seco. 101.2

House. 101.7

Tienda on left. Road level and sandy to this point. 102.2

Tienda on left. Country rolling, and at this point road runs down a 2.5° slope to Río San Sebastián, which is crossed by fording. Banks of road sloping; sandy bottom. A bridge 200 feet long, 45 feet high, spans the stream, but is impassable. It has been condemned for traffic. 103.2

Road turns to right, sandy and level for 1 mile, then climbs a hill of 3° grade for another half mile. Near this point a pumping station on left for irrigation. Engine and tank. 103.5

Small house on right. A road runs off to right through tobacco land. Road passes over ridge, turns toward the south for 0.5 mile, then toward the west, passing along open ground. Gentle down slope. 103.9

Gate to left to Vivero, headquarters American Tobacco Company in this part of island. From this point the road winds around a ridge, high ground to left, and for 250 yards before reaching the San Juan River runs down steep slope with high bank on right. Crosses river on a wooden bridge 50 feet long and 25 feet high. 104.2

Road enters San Juan y Martínez at north end of town perpendicular to main street. 105.2

Road crosses small stream (Arroyo de los Negros) about 100 yards beyond evidence of mud hole. 105.7

Bad mud hole. 106.2

Evidence of bad place in wet season. All land cultivated; country rolling, numerous vegas and tobacco 106.7

- Miles from Cai- barns. Road passes along side of ridge, high ground to
mito. right; large vega entered by gate with tile overhead.
- 107.2 Down grade for about 400 yards, sandy road.
- 107.7 Crosses stream about 10 feet wide (Arroyo Ahoga Mulas), old wooden bridge in bad condition.
- 108.2 Water hole right side of road; about 400 yards beyond evidence of mud holes.
- 108.7 Road runs up a grade to top of high commanding ridge. House to left over highest point.
- 109.3 Road down grade 500 yards, thence winding across flat. Sandy bottom stream.
- 109.7 Water hole on right side, road level and sandy for a mile. Clumps of bushes to left. Continuing on in same general direction, winding to Galafre. Railroad close to left during last 2 miles, 100 to 400 yards away.
- 110.7 Road crosses small stream (Arroyo Papayas).
- 111.2 Road meets railroad and turns to right, mud hole in center of road about 100 feet long. Four hundred yards beyond, an iron bridge 50 feet long, 20 feet high, floor in bad condition over Río Galafre. Country becomes less cultivated; small houses scattered about.
- 111.7 Flat, sandy; wire fences on both sides.
- 112.2 Evidences of bad place in wet season.
- 112.7 Crosses dry arroyo, steep banks. Road turns toward south passing over table-land cut up by arroyos, which road crosses in three places in the next 1.5 miles; branches of Arroyo Yaguas.
- 113.7 Road goes through small ravine with small mud hole in center.
- 114.2 Road turns toward west, small houses on left, road crosses very small ridges. Little cultivation, wire fences on both sides.
- 115.2 Houses scattered along both sides of road. Sea to the south in sight, 1.5 miles distant. Crosses a small stream (Arroyo Ramones).
- 116.2 Masonry bridge over small stream, Arroyo Malao, about 15 feet wide, 400 yards beyond road goes through a small ridge.
- 117.2 Houses on both sides and more cultivation appears, cornfield on left, country rolling and open and does not appear very productive.
- 117.7 Road goes through small ravine and crosses stream, Arroyo Camarones. Passes over a commanding ridge from which church of Sábalo can be plainly seen, among trees.

	Miles from Cal- mito.
Small stream (Arroyo de Puercos).	117.9
Small stream crossed by wooden bridge, in fair condi- tion (Arroyo de las Mangas).	118.2
Sábalo.	118.7
Small stream, Río del Sábalo (or Río Mántua) road leading over rather rough ground; 300 yards beyond another small stream (Arroyo Cabezas de Mal Paso).	119.2
Road leads through cut in bank and crosses small stream, 100 yards beyond a marsh.	120.2
Road crosses small stream (Arroyo de Naranjo).	121.7
Crosses stream (Arroyo de Esmeralda).	122.2
Road leads through a bottom and crosses a small stream (Arroyo del Horno).	122.7
Small stream (Arroyo de las Mangas del Valle), sandy road beyond.	123.7
Crosses small stream, rather deep.	124.2
Small stream, bad ford.	125.7
Road leads down a ravine for about 1.5 miles, heavy timber and underbrush on both sides of road.	126.7
Río Cuyaguaje, gravelly bottom, steep banks.	128.2
Guane. On entering town, road crosses a wooden bridge, 25 yards long, good condition. (Guane appears on old maps as Filipina.) Leaves southern end of Guane, crossing a small wooden bridge over Arroyo Bar- rancas, 0.3 mile out. Road runs between Cuyaguaje River and the railroad; passes near the railroad station about 0.7 mile out of Guane.	128.7
Road west to Juan Gómez, cultivation.	129.8
Crosses the railroad and the Arroyo Bagazal and enters Paso Real de Guane, crossing stream over wooden bridge, 50 feet long, 15 feet wide; stream 5 to 6 inches deep, current good, bottom sandy, banks 15 feet high and very steep. Crossing by ford, impracticable after heavy rains.	131.6
Trail through woods to Embarcadero Catalina de Guane. Main road divides; a branch following telegraph line to San Julián.	131.8
Turns more south, savanna country.	132.3
Turns a little east of south; a road runs to west.	132.9
Turns due east, trail to west to San Julián, cultivation.	133.7
Trail north to Paso Real.	134.7
Ascends ridge, grade 6°, bed good, sand and clay.	135.3
Embarcadero Catalina de Guane. Road turns south along Cuyaguaje River; country under cultivation; swamps to west of road.	135.7

- Miles from Cai-
mito.
- 137.0** Catalina, center of district, one tienda. Trail west to El Barro through swamps, known as Ciénaga de La Siguanea.
- 138.2** Passes two houses, trail to southeast to Cuyaguaje River.
- 139.0** Trail to east to Cuyaguaje River. Crosses Arroyo Jagua by ford, stream low and wide, little current. Impassable after heavy rains.
- 139.2** Crosses Arroyo Hediondo on wooden bridge, 2 feet above water, 30 feet long. Would probably be submerged after heavy rains.
- 139.5** Puerta de Catalina. House. Road to southeast to La Grifa. Road turns southwest. Sand. Savanna from this point to Guadiana.
- 140.5** Santa Bárbara, small cultivated district. Road to south to Las Martinas. Sparse growth of underbrush.
- 141.5** Road west to Los Orejones.
- 141.7** Road to south to Las Martinas.
- 143.5** Quiros, a finca. Road north to Los Orejones.
- 144.3** Palmarejo, a finca. Road north to Los Orejones. Road south to Las Martinas.
- 144.5** Telegraph line crosses road. Cross road; to north to San Julián; to south to Las Martinas.
- 145.5** Cross roads, Asiento Viejo, to north to San Julián; to south to Las Martinas.
- 146.8** Road northeast to San Julián; pine growth.
- 147.7** Passes small lagoon, Laguna del Asiento.
- 148.2** Turns north. Crosses Río Verde; ford 4 feet wide, banks low, bottom sandy. Depth 2 to 3 inches. Always passable. Road to northeast to Vizcaino.
- 149.0** El Limón, a finca. Road turns southwest and divides into two, both of which run parallel into Guadiana.
- 151.0** Guadiana.

ROAD No. 2.

EMBARCADERO DE LA ESPERANZA—SAN CAYETANO—MALAS AGUAS—
RÍO DEL MEDIO—BAJA—BÁRTOLO—DIMAS—SANTA ISABEL DE
BORREGA—LAS CRUCES—PUNTA COLORADA (OCEAN BEACH).

General direction: S. Distance: 88.7 miles.

IN GENERAL.

1. From Embarcadero de la Esperanza to San Cayetano the road bed is clay and sand, grades short and easy, but washed out in places.
2. From San Cayetano to Malas Aguas is a dirt road 7 feet wide, condition good except in jungles along Río Duque. This bad stretch

is 0.7 mile long. There is wood for repair along the roadside. No bridges; country rolling; hills covered with scrub growth. River courses very swampy. Near Malas Aguas the country opens out and becomes a prairie. Río Duque, 20 feet wide, 2 feet deep, velocity 2 miles per hour, rock bottom, banks steep, ford difficult.

3. From Malas Aguas to Santa Lucía is a dirt roadway, condition good, 7 feet wide, easy grades, timber for repair along road. Country rolling, pine growth, soil sandy, and no cultivation.

4. From Santa Lucía to Río del Medio there is a good road practicable for wagons. At places it would be very muddy during rains.

5. From Río del Medio to Baja there is a good dirt road, practicable for wagons.

6. From Baja to Bártolo is a good wagon road.

7. From Bártolo to Dimas is a wagon road 8 feet wide, practicable for wagons. No grass or camp sites. Private telephone line runs to Pinar Oscuro.

8. From Dimas to Las Cruces is an ordinary dirt roadway 10 feet wide; plenty of wood for repairs along sides.

9. From Las Cruces to Punta Colorada (Ocean Beach) there is a good wagon road passing through a country with a sparse palm growth; brush along streams.

IN DETAIL.

	Miles from Es- peranza.
Road divides. Both roads run to San Cayetano.	1.9
Road east via tienda San Francisco, connecting with main road along coast through El Rosario, Berracos, and Río Blanco. Both roads practically level and passable at all seasons.	
Join San Cayetano road above mentioned; turn more east.	2.5
Roads from San Cayetano to Esperanza, El Abra, Malas Aguas, San Vicente, La Jagua, Berracos, and La Palma.	2.8
Road to left to Abra.	3.5
Road to left to Abra.	4.4
Road to right to Esperanza.	4.8
Road to right to Esperanza.	5.2
Road to right to Embarcadero de las Playuelas.	5.5
Hatico San Bernabé de Morales. Road to left to Abra.	6.3
Road to right to Embarcadero de las Playuelas.	
Roads to right to Embarcadero de las Playuelas.	7.8; 8.3; 8.8
Cross small branch of Río Pan de Azúcar, flowing northwest.	9.2
Road to right to Embarcadero de las Playuelas.	9.4
Road to left to Abra.	10.8

Miles from Es-
peranza.

- 11.0 Cross Río Pan de Azúcar, flowing north.
- 11.3 Cross small branch of Río Pan de Azúcar, flowing north.
- 12.5 Cross small branch of Río Malas Aguas, flowing north.
- 12.8 Cross small branch of Río Malas Aguas (Arroyo Ramírez), flowing north.
- 14.2 Malas Aguas, a crossroad.
- 14.3 Cross Río Malas Aguas, 20 feet wide, 4 feet deep, very sluggish, banks steep and 5 feet high; cross river on very light bridge 4 feet wide, 5 feet above water; not serviceable for wagons. Road runs over gently rolling country.
- 16.7; 17 Two small streams flowing north into Río Malas Aguas, 3 feet wide by 1 foot deep, sandy bottom.
- 17.3 Small settlement of Las Maniguas.
- 19.2 Cross Río Santa Lucía.
- 20.3 Cross branch of Río Santa Lucía (Arroyo Las Nieves).
- 21.2 Road turns sharply to northwest. Road to west to Embarcadero de la Cuchilla. Road to south to Mata Hambre.
- 22.3 Cross small stream, sandy bottom, at tienda of Santa Lucía, which is on the left of the road. Tramway runs from it crossing road to small wharf 75 yards to right of road. This is Santa Lucía.
- 24.3 Small creek.
- 26.3 Arroyo Biajacas, small stream with good ford.
- 27.6 Río Nombre de Dios, 10 feet wide, 1 foot deep, good ford, but steep banks. Scattered vegas.
- 28.7 Nombre de Dios, a small district composed of about 15 vegas.
- 30.3 Río del Medio, 8 feet wide and 0.5 foot deep; good ford; vegas scattered about.
- 33.3 Río del Medio.
- 35.6 Arroyo Hicacos, good ford.
- 35.5 Río de Baja, good ford.
- 36.6 The road from Baja to Coniego runs southeast to a range of hills parallel to the Macuriges-Baja road, and about 1 mile from it. It then runs southwest. Half a mile from the point where the road changes direction is the Zarzal River. Near this river it joins the Macuriges-Baja road. From Coniego a wagon road runs in a westerly direction for about 0.7 mile to Macuriges. From this road a wagon road branches to the southwest for about 1 mile, where it joins the Bártolo-Dimas and the Bártolo-Macuriges roads at the crossroads 1 mile west of Bártolo.

Miles from Es-
peranza.

Cross San Bartolomé River; 12 feet wide, 3 feet deep, 42.0
4-mile current flowing northwest; fordable, approaches
steep; sandy bottom; fluctuates 8 feet. A small cable
with a ferryboat, capacity 4 men, is provided for the
rainy season. Water supply good and ample.

Bártolo. 42.2

About 1 mile out of Bártolo a wagon road branches to 43.2
the northwest and joins the Dimas-Bártolo road about 1
mile east of Cruz del Pino.

About 1 mile farther the road branches (to Dimas in a 44.2
western direction). The road to Pinar Oscuro continues
in a southern direction for about 2.5 miles to Pinar
Oscuro.

A sawmill has telephone connection with Coniego and 44.7
Dimas. The road branching from the Bártolo-Pinar
Oscuro road runs to Dimas in a northwest direction.

About 1 mile from where it leaves the Bártolo-Pinar 47.7
Oscuro road, a small, shallow, fordable stream, running
southwest, crosses the road.

About 1 mile farther a similar stream crosses the road. 48.7
Between these streams a trail branches to the north and
runs to Pueblo Nuevo.

The road joins the Bártolo-Dimas road (main western 55.5
road) at La Ceja, about 0.2 mile from Dimas.

Dimas.—The country traversed is uncultivated except 52.7
a small place between the two streams, and is covered
with a growth of pine scrubs and wire grass. Heavy
underbrush lines the road from Dimas for about 3 miles
eastward. Leave Dimas at shore end of main street.

Road to left to Pueblo Nuevo. 53.2

Road to left to La Jagua. 53.5

Road to left to La Ceja. (San Francisco de la Ceja.) 53.7

Road crosses small stream flowing west. (Arroyo de 54.2
Yaguasas.)

Cross Río Diego (Santa Rosa), 15 feet wide and 0.5 55.7
foot deep, bottom rocky, banks shelving, good ford.

Settlement of Navarro; three roads to left to La Ceja. 57.2

Cross one fork of Río Camarones. 58.7

Cross another fork of Río Camarones (both small 59.2
streams).

Cross roads of Santa Isabel de Borrega, small tienda on 59.7
right of road. Road to left to La Jagua. Road to right
to La Cana.

Miles from Es-
peranza.

- 60.0 Road to right to La Cana.
- 60.7 Road to left to La Jagua.
- 62.7 Cross roads. Tienda and schoolhouse. On the last 2 miles the road crossed six unimportant streams.
- 64.0 Cross Río Buena Vista, width 12 feet, depth 6 inches, velocity 1 mile per hour; rocky bottom, banks shelving, ford good.
- 65.2 Meeting point of five roads. Mántua road runs due south. Road to northwest to La Cana. Road to southeast to Mántua. Guane road. Road to southwest to brick yard of Mántua.
- 67.2 Road crosses Arroyo Malcasado, small stream flowing to left, sandy bottom.
- 67.7 Church at Mántua.
- 68.2 Road to left, main road to Guane, an incompleated calzada.
- 69.0 Road to right to Damují; trail to left to Guane road.
- 70.5 Small log bridge 15 by 7 feet, 5 feet above water; very little stream, with steep dirt banks; no fords.
- 71.0 Lázaro tienda on left of road; road to right to Damují.
- 71.5 Road to right to Damují.
- 72.7 Settlement of Navarro.
- 74.2 Cross very small stream flowing to left.
- 74.7 Las Cruces de Abalos; ford of Mántua River, 35 feet by 1.5 feet; sandy bottom, shelving banks, stream sluggish.
- 75.7 La Ceiba. Road turns east to Guayabo. Roadbed sand and dirt; good condition.
- 77.2 Guayabo. Road to north to Santa Lucía and Montezuelo. The road passes through a gate and divides. Turns southwest. Road to east from this point to Santa Lucía, to south direct to Punta Colorada. Road crosses dry bed of creek.
- 77.7 Crosses dry bed of creek, Arroyo Guayabo.
- 78.0 Turn southeast around shack. Road to north to Santa Lucía.
- 78.2 Road to east to Hato Guane.
- 78.5 Road to southwest joining direct road to Punta Colorada.
- 78.7 Road to southeast and northwest joining road to Punta Colorada. Crosses dry bed of stream, Arroyo Hicaco. Sandy bottom.
- 81.2 Cross Arroyo Ají; dry; sandy; banks low.

El Roblar (finca). Roadbed very sandy after leaving this point.	Miles from Esperanza.
	81.5
Cross Río Salado; crossing sandy; 15 feet wide, banks 4 feet high, water 12 inches deep. Good camp site.	82.2
Road divides; to southeast to Guadiana; to southwest to Punta Colorada; to south connecting road.	82.5
Connecting cross roads; pass small lagoon (Laguna de Las Orillas).	83.2
Turn more south; trail direct to Roblar joins; country covered with growth of pine and scrub palms; very sandy.	84.7
Road leaves connecting direct route to Guayabo Punta Colorada.	86.0
Direct road from Guayabo joins.	86.7
Punta Colorada (Ocean Beach).	88.7

ROAD No. 3.

GUANAJAY—CABAÑAS—BAHÍA HONDA—SAN MIGUEL DE LOS CALDERETOS—LAS POZAS—LA MULATA—RÍO BLANCO.

General direction: W. Distance: 70 miles.

NOTE.—On September 30, 1908, a metaled road was under construction connecting Cabañas and Bahía Honda.

IN GENERAL.

1. Guanajay to Cabañas.—An excellent road in all seasons of the year for all classes of transportation. Sufficiently wide for two wagons to drive abreast. Stone and wire fences entire distance. All bridges in excellent condition. Telephone line following road entire distance.

2. Cabañas to Bahía Honda.—The calzada continues nearly southwest from Cabañas for 2.5 miles, passable at all times of the year for any wheeled transportation; from this point the dirt road, passable for carts during the dry season only, continues on southwest to Bahía Honda, through the old ingenios of San Agustín, Recompensa, Santiago, Nazareno, and Montaña, over small hills, crossing small rivers that are easily fordable in the dry season but impassable in the rainy season. Wire fences follow the road most of the distance. After leaving the calzada the telephone line takes a more direct line and is only visible at long intervals. Country north of the road fairly level; that south of road very hilly, and as you approach Bahía Honda it becomes quite mountainous. Large number of cattle in fields. Sugar cane grown only in fields in vicinity of central Oroasco.

3. Bahía Honda to Las Pozas.—A dirt road about 10 feet wide, passing through rolling country. Suitable in dry season for escort wagons.

4. Las Pozas to La Mulata.—A trail which in places broadens into a road suitable for bull carts. It is low and marshy and is practicable for escort wagons in dry season, but during rainy season is practicable for pack trains only.

5. La Mulata to Río Blanco.—A good dirt road over slightly rolling country. It is passable in the dry season for wheeled vehicles, but during the rainy season should be attempted only by mounted or foot troops; and in places, especially in the vicinity of the Río Puerco, would be very difficult for mounted men on account of the mud. The better trail in the wet season would be the south road following the telegraph line from near San Marcos to Ceja Aradores.

IN DETAIL.

Miles from
Guanajay.

Leaving Guanajay via Luz Caballero street, road continues west for a short distance, then turns northwest, ascending steadily to low ridge. There is an old fortification, now a ruin, on hill north within 600 yards of the road. This ridge and hill commands the road as well as the town of Guanajay.

- 1.0 Reaching top of ridge road descends slightly and continues over fairly level country well cultivated. Road
- 2.2 reaches a place called Jabacó (location of old ingenio of same name). At this point a dirt road branches to the southwest, continues in that direction through cane fields for about 3 miles to where it joins the Guanajay-Mendive-Cayajabos road, between Riverón and Chacon, at a point about 3 miles west of the Guanajay-Artemisa calzada. One and a quarter miles from where this dirt road leaves Jabacó another dirt road branches to the northwest for 1 mile to finca Sias. This is the terminal of the east branch of the plantation railroad owned by the Industrial and Mineral Cuban Company running from San Juan Bautista (Guanajay) to Mariel via central San Ramón. From this point the road follows the railroad through cane fields 2 miles to the calzada to central San Ramón. Both of these roads are good cart roads during the dry season, at other times practicable for foot troops. Mounted troops might travel over them with difficulty. A short distance beyond Jabacó the calzada zigzags down a steep slope (about 15° for a short distance). An old fort is located just northeast of the road at beginning of descent. The high ground from

which the road descends commands all approaches along the road from the northwest. Miles from Guanajay.

At the bottom of the descent a dirt road branches north, ascends hill to finca Martín Mesa 0.5 mile from where it leaves the calzada, continues on, crossing ridge on which Martín Mesa is located and descends, joining the old Mariel-Guanajay road 1.5 miles from the calzada. This road is passable for carts during the dry season. The calzada continues northwest for 1.3 miles, crossing four stone culverts over dry runs, which during the rainy season are branches of the Caña River, to point where calzada divides, one branch running north to Mariel, the other continuing on west to Cabañas. A short distance beyond the junction, road to Cabañas crosses small stone bridge (10-foot span) over a branch of the Caña River, and 0.2 mile from the junction another stone bridge (30-foot span) crosses the Caña River. Just beyond two roads cross the calzada from the south; one comes up from finca Sias and the other from finca Regalado, 1.5 miles south. At finca Regalado this road branches on, continuing southwest 1.5 miles to San Juan Bautista (Guanajay). The branch southeast runs through cane fields for a short distance, then becomes a trail and continues on south for about 3 miles, where it connects with the Guanajay-Cayajabos road at finca Mendive. This road is passable for carts during the dry season and is practically impassable during the rainy season, owing to the fact that entire bottom is flooded by the Mariel River. Where the two roads cross the calzada they merge into one road which continues through central San Ramón, turns east and joins the Mariel calzada one-eighth of a mile from the junction. 3.1
4.5
5.0

Plantation railroad crosses the road, which at this point runs a little north of west. A short distance beyond a dirt road branches west, continues for 1.2 miles, where dirt road leaves to the south; the other continues west for 0.2 mile, crosses the Mariel River (about 15 feet wide, 2 feet deep, gravel bottom, high banks cut to ford, impassable in rainy season), then turns north 0.5 mile to the calzada. The branch running south continues for one-eighth of a mile, then west an eighth of a mile, where it crosses the Mariel River, then southwest 0.2 mile, where it crosses a branch of the Mariel River, then southwest for 2.2 miles to finca Paraíso, circling around to the east and south of a ridge of hills. At Paraíso a trail, 5.5

Miles from
Guanajay.

- practicable for horses, branches northwest, circling to west and north of same ridge to Quiebra Hacha; this trail becomes a dirt road about 0.5 mile south of Quiebra Hacha. Total distance from Paraíso to Quiebra Hacha, about 4 miles. At Paraíso the main dirt road continues south for 0.2 mile, then branches, one to east 1 mile to San Juan Bautista (Guanajay); the other branch continues south about 3 miles and, ascending ridge, joins the Mendive-Cayajabos road at Ave María. Total distance back to the calzada about 7 miles. This road is practicable for carts in dry season, practically impassable in rainy season for anything but foot troops and very difficult for them. At the point where the last-mentioned
- 6.0** road leaves the calzada is Cañas. At 0.5 mile from railroad crossing the calzada turns northwest. Three-quarters
- 6.7** of a mile beyond an iron bridge (114-foot span) crosses the Mariel River. Banks very steep; river muddy and about 6 feet deep, impossible to ford. Road turns west after crossing bridge; dirt road comes in from the south
- 7.2** from Paraíso. This road continues north of the calzada to the old ingenio of Angosta, about 2 miles. Calzada continues west for short distance, turns slightly to the north, ascends gradually to the town of Quiebra Hacha.
- 8.5** At Quiebra Hacha a good dirt road leads north over small hills 2 miles, where another dirt road turns off to the east, continues east for 0.7 mile, then north for 0.7 mile, where a branch road turns off to the east, descends ridge to Fort San Elias on a peninsula in Mariel Bay, about 2.5 miles from where it branches. The other branch continues north 0.7 mile to the old ingenio of Tinaja; from there a road runs down the ridge 1.5 miles to the quarantine station on Mariel Bay. Total distance from Tinaja back to where road first branches, about 2.2 miles. The main road from Quiebra Hacha continues north, circles to west and descends rather sharply to small stream, crosses wooden bridge and ascends short distance to central Asunción. Total distance from Quiebra Hacha, about 3.2 miles. Just before reaching Asunción another dirt road leads off to the northwest which circles around to Tinaja. From Asunción a macadam road leads north, crosses a small wooden bridge close to mill (about 10 feet wide), and continues north about 2 miles to a small bay, where there is a warehouse and small dock. Another dirt road leads west from Asunción 0.5 mile to the old ingenio of Menocal,

Miles from
Guanajay.

continuing on from there 1 mile northwest to finca Caña; from there west through small woods and over pasture lands about 5 miles over a poor trail to Herradura; and from there on, 1 mile west to Constante on the eastern peninsula, at the entrance to Cabañas Bay. This trail is used only for getting out timber and would be impassable in the rainy season. Carts go over it during the dry season. About 1.5 miles west of finca Caña a trail branches south which leads to the potrero of Dos Hermanos. Another dirt road leads south from Asunción about 3 miles to where it connects with the calzada at the 16-kilometer post, about 0.5 mile west of Quiebra Hacha. On this road about 0.5 mile south of Asunción a road branches to the west, turning southwest to the old ingenio of Verela, 2 miles from where it branches. From Verela road continues south 1.2 miles to the calzada 2.7 miles west of the sixteenth kilometer post. All these dirt roads are used by carts for hauling cane in the dry season, but are only practicable for men or horses during the rainy season. At Quiebra Hacha another dirt road leads to the south for about 0.5 mile into the cane fields, then dwindles into a trail practicable for horsemen, which runs to Paraíso between two short ridges of hills. Calzada leaves southwest from Quiebra Hacha, turns west to where road comes in from the north from Asunción. A quarter of a mile beyond, a dirt road leads off to the southwest to finca San José, 2 miles distant. One-quarter of a mile north of San José another branches to the northwest 0.2 mile, where it divides, one north 1.7 miles to the calzada 1.2 miles west of where the road left it. The other branch runs southwest for 1.5 miles, dwindles into a trail, runs on south for 1 mile, where trail divides, one southeast around ridge to finca San Nicolás, the other southwest 1.5 miles to finca San Francisco on the Cabañas-Cayajabos trail. These roads are passable for carts in the dry season, but impassable for anything but cavalry or infantry during the rainy season. Short distance beyond where last-mentioned road left the calzada another dirt road branches to the southwest for 0.5 mile to finca Begoña, then turns north 0.5 mile, where it connects with the calzada about 1 mile west of where the other road left it on the calzada. Returning to the point where the dirt road ran southwest to finca San José the calzada turns northwest, then

9.2

Miles from
Guanajay.

- west to iron bridge (35-foot span) which crosses the Maizal River (about 15 feet wide, 2 feet deep, muddy bottom, high banks and muddy; impossible to ford; in case bridge were down could ford 0.5 mile south).
- 11.6** Calzada turns west and continues to where road comes in from the north from ingenio Verela. Continues west 0.5 mile where macadam road branches south 0.5 mile
- 12.1** to the potrero of Santa Isabel de Peñalver. There is also a trail leading off from the calzada to the north at this point through the potrero of Dos Hermanos and connects with the trail running to Herradura on the east peninsula of Cabañas Bay.
- 12.8** Calzada continues west to another stone and brick bridge (30-foot span) across the Dominica River (river about 20 feet wide and 5 feet deep, muddy banks and bottom, impossible to ford). Calzada turns northwest crossing two stone culverts each about 20 feet long, to another stone bridge (about 30-foot span) across dry
- 13.4** ravine 25 feet to bottom, Arroyo Guabinas. Calzada turns west and a short distance beyond a plantation railroad belonging to the Mercedita Sugar Company
- 13.5** crosses the calzada, and just beyond that a macadam road branches to the north 0.2 mile to central Mercedita. The hills on the north and south side of the calzada near Mercedita command all approaches along the calzada. Just before the calzada crosses the railroad, a dirt road branches to the south for 1 mile through the cane fields. Here good road dwindles into a trail, turns southwest for 0.5 mile farther where it connects with the road to San Juan Bautista (Cabañas). At central Mercedita there is a dirt road running north 1 mile to swamp; another runs northeast 1 mile to the Dominica River, and another southeast for 1 mile to same river. These are plantation roads only. They both are blocked by the river, there being no bridges. The river is about 20 feet wide by 5 feet deep, muddy bottom, steep muddy banks, impossible to ford. Where macadam road branches to Mercedita a dirt road branches south from the calzada, continuing south for a short distance, then southwest to a point 1 mile from the calzada where road branches, one northwest 1 mile to Cabañas where a dirt road joins it coming in from the south just about an eighth of a mile before reaching Cabañas. Going back to where road branches the other branch continues south 0.5 mile where road branches again, one running southwest for 1 mile where

Miles from
Guanajay.

it connects with an east and west road, the one east going to San Juan Bautista (Cabañas), the west one continuing west for 0.5 mile, the north 2 miles to Cabañas. Going back to where road branches southwest the other branch turns southeast 1.5 miles to San Juan Bautista (Cabañas). This is a thickly settled country and roads are numerous, but the terminals of all of them are Cabañas on the north and San Juan Bautista (Cabañas) on the southeast. All these roads are passable for carts in the dry season, and for only infantry and cavalry in rainy season. From San Juan Bautista (Cabañas) a trail, passable for infantry and cavalry, runs into the foothills south, 1 mile, where it branches, the one continuing south for 1 mile, where it branches again, one branch runs west 2 miles through finca Santa Isabel to another north and south trail, the one north connecting with road from San Juan Bautista to Cabañas about 2 miles south of the calzada; the other branch runs south through finca Roble, then southeast, connecting with the Cabañas-Cayajabos trail about 2 miles northwest of Cayajabos. Returning to where trail branches to finca Santa Isabel, the other branch continues south through the hacienda of Rosario, turns southeast and connects with the Cabañas-Cayajabos trail about 2.5 miles northwest of Cayajabos. The main Cabañas-Cayajabos trail, after branching 1 mile south of San Juan Bautista, continues a little east of south through finca San Juan de Dios to finca San Francisco, about 3 miles from San Juan Bautista (Cabañas). At this point another trail turns east to finca San Nicolás. Main trail continues east of south about 4 miles to Cayajabos via finca San Isidro and connects with trails from finca Rosario and finca Roble at about 2.5 and 2 miles, respectively, from Cayajabos.

Returning to calzada where road leads to Mercedita, calzada continues west past two small hills north of calzada, to point where another dirt road crosses one north around the hills to Mercedita, the one south to San Juan Bautista (Cabañas), connecting a short distance south of the calzada with roads just described running from Cabañas to San Juan Bautista (Cabañas). Calzada continues west 1 mile to Cabañas. At this point a macadam road runs 0.2 mile north to the beach, which is really a continuation of the principal street of Cabañas, and extends south up to the hill where Cabañas is located. A dirt road leaves Cabañas running south. At an eighth

14.0

15.0

Miles from
Guanajay.

of a mile out it branches. Branch running southeast; at 0.5 mile main road branches again, main road turning west, branch road east. At 1 mile out main road branches again, branch road running northeast, main road southwest. At 1.5 miles out main road connects with dirt road from the north; main road continues south for 0.2 mile, then turns east and continues in that direction for 2.2 miles to San Juan Bautista (Cabañas). All branch roads lead to San Juan Bautista (Cabañas) to the southeast, or central Mercedita to the northeast, all connecting into one road before reaching there. The dirt road coming down from the north that joins the dirt road from Cabañas, connects with the calzada five-eighths of a mile southwest of Cabañas, crossing the Cabañas River one-eighth of a mile south of the calzada. The ford at this point is practicable in the dry season only, when carts can cross it; during the rainy season the river overflows its banks and the road is impassable for infantry. Calzada leaves Cabañas southwest, crosses small stone culvert, and just beyond crosses an iron and wooden bridge across the Cabañas River (30-foot span); just beyond, dirt road leaves calzada south to San Juan Bautista (Cabañas).

- 16.1 Calzada continues southwest, turns west, and zigzags
- 17.4 in that direction to where calzada ends.
- 18.7 From this point dirt road begins to turn south to where road branches to south. South branch continues in that direction for five-eighths of a mile to finca Vigía, where trail practicable for infantry and cavalry runs east 1 mile to Cabañas River, crossing same (river 8 feet wide and 6 inches deep in dry season, low banks, gravel bottom), turns northeast 1 mile through pasture land, and connects with dirt cart road to San Juan Bautista (Cabañas). The main road turns west a short distance,
- 19.2 then northwest to where road again divides; branch runs north 1.5 miles to Cabañas Bay; main road turns west, descends ridge, crosses small stream (which in rainy season is impassable for horses owing to muddy bottom), ascends ridge, turns south to where road connects with it from the southeast from finca Vigía 1 mile distant. Main road turns southwest along ridge, descends same, crosses a plantation railroad track, which
- 20.9 leads 1 mile north to Cabañas Bay and 0.5 mile south to the old ingenio of San Claudio. From San Claudio a trail practicable for infantry and cavalry runs southwest

Miles from
Guanajay.

along the old railroad for 0.5 mile to bridge across the San Claudio River. From this point three trails branch out to the southeast, south, and southwest. The trail southeast runs into the mountains through finca Baracoa, about 3.5 miles from the bridge south of San Claudio. From there the trail ascends a steep hill and connects with trail from Cabañas to Cayajabos halfway between finca Santa Ana and finca Roble. The trail is but little used and is frequently cut off by wire fences. The south trail continues on to Ceiba via finca Senemo and from Senemo runs through the mountains to Candelaria. The southwest trail continues into the foothills to San Diego de Nuñez about 7 miles from San Claudio, and connects there with a cart road to Bahía Honda. At San Claudio another trail leaves west, crosses the Bahía Honda River, ascends hill, and connects with the main road beyond. This is the trail used by men on foot and horsemen during the rainy season when the river is so high it can not be forded where main road crosses. The river here is about 15 feet wide and 1 foot deep in the dry season; water excellent; gravel bottom; high banks cut to ford; current rather swift. Returning to the main road, after crossing the railroad, road crosses San Claudio River just beyond; no bridge; river about 15 feet wide, 1 foot deep, gravel bottom, low banks. Impossible to ford in rainy season; ford 0.5 mile south.

After crossing river road ascends hill to the old ingenio of San Agustín. Here another old plantation railroad (ties and rails all gone) runs north 2 miles to a peninsula of Cabañas Bay, where the railroad ends. A trail continues north 1 mile farther to Torreón Reina Amalia (now practically a ruin, which at one time commanded the entrance to the bay). This trail is practicable for carts to end of railroad; from there for infantry and cavalry. Another trail practicable for infantry and cavalry runs south from San Agustín, which about 0.5 mile out branches west 1.5 miles, where it connects with the main road. The other branch continues south for a mile, descending hill where it branches again, one branch turning off northwest 1.5 miles where it connects with the first branch just before it joins the main road. The other branch turns northeast 1.5 miles back to San Claudio, and still another branch continues south for 0.5 mile, where it connects with trail from San Claudio to San Diego de Nuñez. The main road turns north a

22.1

Miles from
Guanajay.

- 23.1** short distance from San Agustín, then west to where three roads branch; one north to the dock of central La Luisa 2 miles north. The other northwest 5 miles to central La Luisa, as it is called by the people living in that vicinity; its proper name is central Orosco. From there the road leads to Bahía Honda. The road southwest leads to Bahía Honda; it is not much used, however, and joins the Bahía Honda road at the old ingenio of Santiago 4 miles beyond. The main road continues
- 28.1** northwest to central Orosco, crossing a wooden bridge over a small stream about 1.5 miles east of the mill. At central Orosco the road crosses a small stream; no bridge; ford is fairly good, banks sloping. Road continues south-
- 29.1** west, crosses Río Santiago over wooden bridge (20-foot span). This place can not be crossed in the rainy season, as the water rises much higher than the bridge and floods the entire bottom. Road continues southwest over
- 30.1** small hills to the old ingenio of Santiago (or Falguera). From there the road west runs to the old ingenio of San Juan de Dios. At this point a road runs west 1 mile to the old ingenio of Candelaria.
- 30.4** Road to Bahía Honda leads south for 0.2 mile, where road branches south to the ruined ingenio of San Gabriel, only 0.5 mile away. The main road turns off southwest, continues in that direction for about 0.1 mile, then west over small hills to point where road comes in from the southeast from San Diego de Nuñez.
- 33.1** From this point road leads west for about 100 yards, crosses the Nazareno River (2 feet deep, 15 feet wide, high steep banks cut to ford, gravel bottom, good running water; impossible to ford in rainy season; banks 15 feet high).
- 34.1** Road rises steadily along ridge to the old ruined ingenio of Nazareno. From this point road descends, crosses small wooden bridge over small stream 0.2 mile from Nazareno and continues southwest over good grazing
- 35.6** country, partly cultivated, to the ingenio of Montaña. Just beyond Montaña road crosses Río Montaña (Cirilo), (20 feet wide by 2 feet deep, running water, excellent quality, gravel bottom, high banks cut to ford, impossible to ford in rainy season; river is said to rise suddenly as high as 20 and 25 feet, flooding entire bottom).
- 37.1** Road continues southwest to Bahía Honda.

Concrete bridge. Macadam road. Wooden bridge short distance beyond. Marshy some distance to the left.	Miles from Guanajay.	38.0
Macadam road ends.		38.1
Concrete bridge.		38.4
Twenty-foot concrete bridge. Marshes on the left.		38.6
Twenty-foot wooden bridge in poor condition.		38.8
Small stream; could water 12 horses.		39.0
Buena Ventura on right. Road runs through plantation of orange trees, property of American company.		39.4
Small gate. Turn to right.		39.7
Scattered clumps of bamboo at base of low ridge. Pass through small gate.		40.0
Finca Los Apuros. A circular masonry ruin on left 25 feet in diameter and 3 feet high; ruins of sugar mill.		40.7
Large bamboo jungle on left 75 yards distant. Rolling grassy country with scattered palms from here to Bahía Honda.		41.2
Pass through small gate, crossing faint trail.		41.3
Marsh on both sides.		41.4
Río San Miguel (or Río Manimaní), 15 feet wide, fair crossing. Road difficult to follow on account of many branches and trails. Few houses. No cultivation. Cross Arroyo Peneque and take trail.		41.7
Two shacks on right.		42.3
Pass through small gate. Barb-wire fence across road.		42.4
Meet another road at right angles.		42.6
Trail on left.		42.7
Trail on right.		42.8
Faint cross trail at top of short steep hill.		43.4
Pass through gate; pond on right.		43.8
Two trails on right. Tienda Los Reyes on right.		44.0
Trails coming in on both sides just before reaching tienda.		
Two shacks on left and one on right.		45.7
Arroyo de las Pozas; bad mud hole here.		46.0
Arroyo de la Legua, 6 feet wide. Bad place for wagon, and requires extra team.		46.6
Las Pozas; ruins of old stone church, steeple standing. Road branches twice. Go to right first, and left the second time.		46.8
Río Las Pozas, 20 feet wide, sandy bottom; could water one troop; banks steep. Shack on left.		47.0
Marsh on left.		48.0
Marsh on right.		48.3

Miles from
Guanajay.

- 48.5 Trail on left; barb-wire fence both sides.
- 48.7 Arroyo Hondo, 10 to 12 feet wide.
- 49.2 Trail on left.
- 49.3 Cross trail; turn to right; small shack on left.
- 50.1 Río San Marcos; bad crossing; muddy; water one
troop. Trail to left.
- 50.6 Grass clearing on right.
- 50.8 Small stream, and a bridge for one horse. Trail used
by bull carts, but is difficult. Ground low and marshy.
Not practicable for escort wagons in rainy season.
- 52.2 Trail runs through marsh, nearly dry. Open grass on
left. Dense brush on right.
- 52.9 Río San Marcos.
- 53.4 Small trail to left.
- 53.6 La Mulata (tienda).
- 54.0 Join road from Mulata to San Marcos.
- 55.5 Reduan.
- 58.5 Margarita (Buenavista).
- 61.0 Media Luna.
- 63.5 Río del Caimito, 30 feet wide, gravel bottom, banks cut
for wagons.
- 64.0 Tortuga. Country low and level.
- 64.2 Cart road runs north to Embarcadero Tortuga.
- 66.2 Cross Río Puercos on wooden bridge. River 25 feet
wide, shallow; low, muddy banks.
- 66.4 Río Puercos, 2 houses.
- 68.0 Arroyo Rico, settlement.
- 70.0 Río Blanco (Guacamayas).

ROAD No. 4.

BAHÍA HONDA—SAN CRISTÓBAL—CANDELARIA—SABANALAMAR.

General direction: S. Distance: 41.5 miles.

IN GENERAL.

1. From Bahía Honda to San Cristóbal is not suitable for wheeled transportation. The entire course of the San Cristóbal River along this trail indicates that it is impassable in the rainy season. The current is evidently strong and the river rises high.

2. From San Cristóbal to Candelaria is a macadam road, practicable for transportation in all seasons, passing through a cultivated country.

3. From Candelaria to Sabanalamar is a dirt road practicable for horses from Río Hondo to Sabanalamar and Canton. In rainy season practicable for horses as far as Río Hondo and from there impracticable for anything but men on foot. Wire fences line the road most of the distance.

IN DETAIL.

From point on Bahía Honda-Cayajabos trail where trail comes in from Llano, take trail following generally south for 2 miles, up two steep ascents where trail branches, one east to finca Chipi, the main trail continues south to finca Llano. Here trail branches to west going to Aguacate, main trail continues through finca, then southeast up rocky ascent between two high peaks, along ridge descending slightly to river (San Cristóbal); 15 feet wide, 3 feet deep; gravel bottom; easy approaches; general direction of stream southeast. Trail crosses stream, leaves it southeast, ascends small hill where it crosses trail running east to El Brujo and southwest to Vega Morales. Main trail continues southeast, descends to San Cristóbal River, follows along bank for short distance, then ascends slightly and enters quite an extensive valley; grazing good; water plentiful, and of excellent quality. This is part of the hacienda Brujo. Trail continues through this pocket to San Cristóbal River, follows along same, crossing several times. The river grows steadily larger and bottom and banks very rocky. It is about 15 feet wide, and at fords from 1 to 3 feet deep, with numerous deep holes along the course. In places the river divides for short distances, forming small islands. These islands, as well as banks on both sides, are covered with small growth of trees. Banks grow more precipitous and in places ledges of rock run up to a height of 100 feet. Just before arriving at the finca El Tumbo, trail leaves river and crosses three small hills near El Tumbo, which consists of three shacks. Trail leaves finca southeast to river; course of river at this point is southwest, continues so with trail following it for 0.7 mile, where a high white wall of rock changes its course southeast; trail crosses river; at this point ford is very difficult owing to great number of large round rocks; trail continues in a general southeasterly direction; owing to precipitous banks trail leaves river in numerous places, crossing small hills and returning to river, continuing to finca Soledad, descending long slope

 Miles from
Bahía Honda.

4.0

4.5

5.5

7.5

8.5

10.0

10.7

13.2

Miles from
Bahía Honda.

- to river, where trail branches off east to Brujito. Trail to San Cristóbal continues along bank 1.5 miles to finca
- 16.5** El Bohío. Trail continues along bank for a short distance, then crosses hill, descends to river, and a short distance beyond river widens out into a deep pool caused by dam-like formation of rocks where river turns east. Trail continues south through practically level country, houses numerous, trail becomes cart road, continues
- 18.5** southeast through sitio Herrera to San Cristóbal.
- For description of the San Cristóbal-Candelaria road, *see* Caimito-Guanajay-Artemisa-San Cristóbal-Paso Real-Pinar del Río-San Juan y Martínez-Guane-Guadiana road, from 22.2 to 29.2 mile points.
- 26.0** Candelaria. From Candelaria road runs south, crosses the railroad just before leaving Candelaria.
- 28.0** Finca Tenería. From here the road turns more southwest and continues over level, uncultivated fields (good grazing).
- 29.0** Tobacco plantation of Santo Cristo.
- 31.5** Road crosses Río Santo Domingo (or Río de los Colorados); no bridge; river about 20 feet wide by 1.5 feet deep, running water, rock bottom, banks 15 feet high cut to ford. A short distance beyond road turns more to the south and continues south over grassy and wooded country.
- 36.0** Finca Santa Isabel de Mayarí. At Santa Isabel a trail comes in from the east from the potrero of Rincón Hondo about 1.5 miles distant. From this point the road continues south.
- 39.2** Río Hondo (20 feet wide by 2 feet deep, rock bottom, low banks). From this point the road is swamp; it continues for 1.2 miles.
- 40.5** Road dwindles into a trail; this trail continues south to where the trail comes in from the northwest from Taco Taco.
- 41.5** Sabanalamar. A trail comes in from the west from Bacunagua. The trail continues southeast 0.5 mile through the finca La Jagua to Loma Colorada, on the Río Hondo. Loma Colorada is part potrero and part tobacco plantation and would make a good camp for a battalion of infantry or cavalry. Between Santa Isabel de Mayarí and Sabanalamar are Arroyo Corralillo del Blanquizal and Arroyo del Conuco, or del Mulo. Both are small. From Loma Colorada a sandy road runs south 0.5 mile to Canton on the Río Hondo. Canton is

located about 2.5 miles from the sea, which can only be reached by the Río Hondo owing to swampy lands. At Loma Colorada a trail comes down from the north along the Río Hondo from Rincón Hondo and one comes in from the northeast from finca Jejenes. These trails are all poor and used only by hunters and fishermen.

Miles from
Bahía Honda.

ROAD No. 5.

COLOMA—PINAR DEL RÍO—VIÑALES—ESPERANZA.

General direction: N. Distance: 44.8 miles.

NOTE.—During 1908 a metaled road was constructed connecting Pinar del Río and Esperanza.

IN GENERAL.

1. From Coloma to Pinar del Río is a good macadam road, running through a flat country. During the rainy season portions of this road are covered with water.

2. From Pinar del Río to Viñales is a broad dirt road for about 7 miles, generally level and practicable for wagons with full loads in the dry season. Two of the short grades require double teaming. Road-bed is gravelly for about a mile before reaching the foothills. A cart road runs over the foothills, which is steep in places, but not rocky, and is practicable for carts at all seasons. Near Viñales the road is a good broad wagon road, fairly level and practicable for wagons in the dry season.

3. From Viñales to Esperanza is a wagon road with bed of clay and sand. Grades short and easy.

IN DETAIL.

	Miles from Coloma.
Road to left to Palizadas.	0.7
Cross Arroyo Jucaral, swamps on both sides (Laguna de Las Garzas). Country from this point to Coloma generally swampy and covered with thick brush.	1.0
Branch road from Marcos Vázquez and Ovas.	1.2
Cross Arroyo Flamenco over a culvert.	5.2
Cross two small arroyos over culverts.	5.7
Cross small arroyo over culvert.	6.2
Branch road to left to Palizadas.	7.5
Cross small creek over a culvert. To this point country west of road fertile and generally tobacco land. From this point to kilometer 23 on both sides of road country	10.2

Miles from
Coloma.

- low, uncultivated, and barren; covered with scrubby growth of palm and pine.
- 11.0** Cross small creek over culvert, concrete, single span. Country on east flat and barren.
- 11.5** Tienda to left. Country cultivated.
- 12.0** Cross Guamá River (locally known as Río Taironas) over wooden bridge 60 feet long, 40 feet high; condition good. Ford 25 yards west of bridge, steep banks, gravel bottom; dry season 1 foot deep and 12 feet wide.
- 12.5** Cross small creek over single-arch concrete bridge.
- 13.0** Tienda to right.
- 13.5** Cross small creek over single-arch concrete bridge.
- 15.5** Enter Pinar del Río at south near Malecón. Leave Pinar del Río over road bearing about northeast from calle Vélez Caviades. Ice plant on right of road near end of wooden bridge, 125 feet long, 35 feet high, over the Río San Felipe. Practically level dirt road, 24 feet wide, for 0.5 mile. Crosses low ridge. Two tiendas and a tannery on the right just after crossing the bridge.
- 15.7** Tienda La Defensa on the right, and road to Puerta de Golpe. Country on both sides of the road cultivated. Numerous palms.
- 16.1** Small tienda in fork of road. Straight ahead to Consolación del Sur. Road to left, following telegraph line, to Viñales. Country to this point open and cultivated. Road takes a northerly direction from the fork and rises gently, following along a low ridge.
- 16.6** Plantation Paraíso on the left. House in an inclosure of young palms. Windmill and water tank. Small tienda on the right. Road broad; bed of fine gravel; follows low ridge for some distance. Wide expanse of rolling country visible on both sides. Scattered houses and cultivation. Considerable sage grass.
- 17.2** Vega San Luis.—House and white barn on left of road. Windmill and water tank.
- 17.4** Road on the left. This road meets a road running north from the Cuartel (Pinar del Río) at a point about 4.5 miles out.
- 17.7** Tienda Gobo on the right.
- 18.0** Cross arroyo containing a little water. Course of arroyo marked by thick line of palms. Road continues in same general direction, rising gently. Country open; for the most part grassy, with scattered houses and cultivation.

- Road turns to the right, going due north down grade. Miles from Coloma. 18.2
 Another road to the left front. Large vega about 1 mile to the northwest.
- Arroyo with a little water. Road coming in from the right rear. Steep bank on near side. Double teaming necessary with heavy load. 18.5
- Road on left to Laguitinas. House and barn, with tobacco and several mango trees, on left. Road broad, fine, firm, gravel. 18.7
- Crossroad. 19.1
- Tile-roof house and barn on the right. Stone ruin just beyond. Road goes down short, steep grade and turns to the right. Double teaming necessary for full loads. 19.2
- Río San José (or Río San Felipe) crossed by steel cantilever bridge 110 feet long, 12 feet wide, and 20 feet above water. In excellent condition. River bed about 20 feet wide. Very little water at present, but good quality. Steep banks on both sides. Possible to water a troop at a time. Road turns to the right after leaving the bridge. 19.7
- Small tienda on the right. Two stone ruins on the right just before reaching the tienda. Number of scattered houses and considerable cultivation at this point. Not much cultivation for the last 1.5 miles. Mostly sage grass and scattered palms. 20.1
- Large stone tienda, San José, on left. Good camping site here for a regiment. Plenty of grass and water, but not much wood. After leaving San José the country continues open and grassy, with very little cultivation. Large vega about 2 miles to the west near the Loma las Flores. 20.4
- Road turns to the left. Small tienda on the right. Several houses scattered about, with patches of tobacco. Road on right, along low ridges, to Pilotos. 21.7
- Road on the left. Low, scattered brush on both sides. Does not offer resistance to movement of troops, but affords some concealment. Road turns to right. Still broad. Up to the last tienda the road continues gravelly, but from here it is light clay and dirt. Old ruts show that it is heavy in the rainy season. 22.0
- Road turns to the left, crossing small plank culvert over dry arroyo. Faint road on right just before reaching this point. Few shacks and a little tobacco cultivation on top of ridge just beyond. Numerous scattered shacks 22.4

- Miles from
Coloma.
- and palms, with considerable tobacco, in valley straight ahead.
- 22.7** Cross arroyo containing a little water.
- 22.8** Río Ajiconal, stony bottom, 8 to 15 feet wide. Water 20 horses. Quality not very good. Fairly steep grades, both sides.
- 23.0** Tienda on the right. Considerable small dense brush about 200 yards off to the left.
- 23.1** Tienda Guao on left. House on right. Road on the left just beyond.
- 23.3** Take road on the left, descending gentle slope. This road rapidly degenerates into a narrow dirt trail, which takes a general direction toward the hills, crossing a number of small trails. Country open and grassy to this point and on to the hills. Small scattered brush and a few palms. Practically no houses or cultivation.
- 23.9** Base of first foothill. Trail crosses another broader trail near the top.
- 24.4** Joins the above-mentioned trail and the telegraph line. The hills traversed by this trail are not so very steep and are generally open and grassy. There is rarely enough brush to afford concealment.
- 24.5** Top of first ridge.
- 24.6** Río Ajiconal in valley on the left. Several shacks and patches of tobacco in the valley to the left front.
- 24.9** Crosses a small trail and rivulet (stagnant water) just beyond.
- 25.4** Trail meets the main cart road.
- 25.6** Highest point of foothills. Fairly dense underbrush on both sides. Trail on left just beyond.
- 25.7** Trail on right. House on left just beyond.
- 26.0** Tienda Murguia (generally called the Spanish tienda) at top of bare hill. Road on right just beyond. Large expanse of country visible from this point in all directions. Road begins to descend from this point.
- 26.6** Small rivulet, nearly dry. A few scattered pines and some brush.
- 26.9** Small trail on the left. Good view of the valley straight ahead. Contains few houses and practically no cultivation. Fairly level. Scattered brush and pine. Few palms. No large trees. Road turns to right and begins to descend.
- 27.1** Road turns to the left. Trail on the right.
- 27.7** At foot of descent. Rolling, uncultivated, grassy country. From tienda Murguia to this point, broad dirt

road, practicable for half loads. From here to Viñales, road is broad and level, practicable for full loads in the dry season. Miles from Coloma.

Deserted house, tile roof, on the right. Two shacks on the left. A little tobacco cultivation. 28.3

Road turns to the right. Small scrub pines on both sides. Two low hills, nearly bare, off to the left. 28.5

Road broadens. Bed, light yellow clay and fine gravel. Country fairly level. 28.6

Two small rivulets within 100 yards of each other. Not practicable for watering. Country more rolling from here on. 29.0

Top of gentle rise. Plenty of sage grass, but very little of scrub pine. No cultivation and no houses. Good broad road. 30.0

Small trail on the right. House and little tobacco on the same side. Just beyond, the road begins to descend into the valley of Viñales, the town being visible from this point. 30.4

Small rivulet, not practicable for watering. 30.9

Circular cistern, or well, 10 feet in diameter, on the right; water fair quality. Bridge of railroad rails, about 24 feet wide, 15 feet long, and 3 or 4 feet high. In good condition. 31.0

The church in Viñales. 31.5

Road to northeast to Laguna de Piedra, La Jagua, and La Palma. No grades; road sandy in places. Road bed firm. Crosses dry bed of stream and turns a little west of north. 32.2

Tienda Guasasa. Road to east just before reaching tienda connecting with Viñales-La Jagua-La Palma road. Just beyond tienda road passes through notch in the sierras and divides; road to left to Ancon and El Abra. 33.9

Turns northwest to Baños de San Vicente. From this point the road follows the valley of El Rosario River to San Vicente. 34.4

Turns north. Several short rather steep grades varying from 6° to 12°. None difficult. Road good. 35.5

San Vicente. Tienda and crossroads. Road to west to El Abra. To northeast to La Jagua and La Palma. Road turns northwest. 37.3

Road to east joining San Vicente-La Jagua-La Palma road. Road follows ridge lines and is in good condition; road bed of firm clay and sand. 38.1

Miles from
Coloma.

- 38.6** Ceja del Toro. Small farming district. Road descends ridge of gradual slope, crosses small stream over log bridge before entering Ceja del Toro. Leaving Ceja del Toro, road ascends similar ridge. Roadbed through valley would be soft and muddy during rains.
- 39.3** Cayo Limón—small farming district of two or three shacks; tienda on right of road; wagon shop on left. Road divides. Road to north direct to Esperanza; the other, more west, to Esperanza via San Cayetano.
- 39.7** Turns due west. Character of roadbed same. Scrub oak.
- 40.3** Turns northwest. Character of roadbed same. Scrub oak.
- 41.2** Crosses small stream, banks high and steep. Road divides. To north to Esperanza; to west to San Cayetano.
- 41.5** San Cayetano. Road turns to north about center of town.
- 41.8** Joins Esperanza road above mentioned. Turns more east.
- 42.4** Road divides. Both roads to Esperanza. Road to east via tienda San Francisco, connecting with main road along coast through El Rosario, Berracos, and Río Blanco. Both roads practically level passable in all seasons.
- 44.3** Esperanza.
- 44.8** The sea and harbor.

ROAD No. 6.

PUNTA DE CARTAS—SAN JUAN Y MARTINEZ—LOS ACOSTAS—LA JAGUA—CABEZAS DE HORACIO—PUEBLO NUEVO (VERONA)—DIMAS.

General direction: N. to La Jagua and from there W. Distance: 60 miles.

NOTE.—During 1908 a metaled road was constructed connecting Punta de Cartas and San Juan y Martínez.

IN GENERAL.

1. Punta de Cartas to San Juan y Martínez.—First 2 miles of road through swamp, the remainder through level country. Is a good dirt road which is being converted into a calzada. General direction of the road is north.

2. From San Juan y Martínez to Los Acostas is a bull-cart road, having many bridges over small streams. Difficult to pass in rainy season.

3. From Los Acostas to La Jagua is a good, broad, unimproved dirt road. Wagon road from Los Acostas to hills, thence a good cart road to Asiento Viejo, and thence a wagon road to La Jagua. The road crosses the high hills and consequently has many steep grades. Wagons should carry only light loads in view of grades.

The stretch from Los Acostas to the hills is over level, cultivated land and the road would be muddy and heavy during wet weather. The road over the hills has a hard gravel bed and sheds water. The natives use the road in the hills during the rainy season.

The country is cultivated in the Los Acostas valley and in patches at Asiento Viejo, but the hills are covered with a scanty growth of pine trees and wire grass.

Asiento Viejo has telephone connections with Manaja and with Cafetal and from there to Dimas on the coast (private line).

4. From La Jagua to Cabezas de Horacio is a wagon road running west on the first range of hills. Good condition. No cultivation except at La Jagua. No houses. Hills are covered with pine trees and grass. Some pasture land on right of ridge. Camp site for squadron at Cafetal (south of Horacio) and for a detachment at La Jagua. Practicable for all classes of transportation.

5. From Cabezas de Horacio to Pueblo Nuevo is a good wagon road running over practically level land. Most of the country is grazing land and pine woods. Cultivated patches at La Ceja. Water scarce. Road forms a right angle. Road practicable for all classes of transportation. No camp sites.

IN DETAIL.

Leaves Punta de Cartas, which is a shipping point ^{Miles from Punta de Cartas.} made up of a dock, two warehouses, a tienda, and a few scattered huts; runs through marshy underbrush, where, in places, it has been necessary to build up and corduroy with railroad rails and poles.

Leaves swamp. 2.0

Road branches, one going north to San Juan, the other 3.5
north to San Luis. Tienda on right of road. Settlement at this point is called La Tea. From La Tea road runs north, crossing several roads of no importance, to a tienda on right of road, where the direction changes to 7.5
the northwest.

Laguna Viamones on right of road. 7.7

Crosses railroad track. 8.7

Enters San Juan. Leaves San Juan y Martínez in 9.0
continuation of the main street going north. Turns sharply to the west at tienda, crosses San Juan River.

Miles from Punta
de Cartas.

- Turns sharply to the north and runs over level country, turning gradually to the northeast and enters the foothills. Tienda on the right. From this point road winds very much, crossing many steep hills, gradually ascends, reaching an elevation of between 500 and 600 feet about 1 mile from Luis Lazo. From this point there is a continuous very steep descent into the valley of Luis Lazo. There are 15 bridges along this road, all wooden, averaging about 30 feet in length; all in good condition. These bridges cross small arroyos running into the San Juan River, and 9 of them cross the Ratones branch of the San Juan River. The three bridges within 2 miles of Luis Lazo cross the Arroyo del Hato on the western side of the divide.
- 23.0** Road runs northeast to Sumidero.
- 23.5** Road runs southwest to Punta de la Sierra. The main tienda of the Luis Lazo settlement is situated at the crossroads. From this point road turns to the west through a pass about 0.5 mile wide between sierras. From this point the general direction is southwest to Los Acostas, running in a westerly direction for 3 miles through the San Carlos valley, which is a break in the sierras of about 6 square miles, containing 6 tiendas.
- 27.0** The main tienda of the San Carlos settlement is situated about 1 mile from the mouth of the gorge which the road enters upon leaving the valley. From the tienda the road runs southwest.
- 28.0** Road enters San Carlos gorge and follows the course of the Cuyaguaje River which flows through the gorge between almost perpendicular walls of a height of between 300 and 500 feet for a distance of about 1 mile. Road through the gorge is very rocky. This river at various places flows underground, leaving a dry river bed.
- 29.0** The road leaves the gorge and reaches La Güira. At this point a road runs west connecting at a distance of about a mile with the Gramales-Los Acostas road.
- 30.0** Road continues to Los Acostas through cultivated country. The road leaves Los Acostas about 50 yards south of the tienda and runs southwest.
- 30.3** Crosses a small creek which flows east.
- 31.4** Hills are reached after road turns west and ascends 150 feet. It then runs a little south of west.
- 32.4** Road branches to left for 0.7 mile to a farm named Martínez.

Ascends 100 feet to top of small ridge. Runs south-
west on this ridge from one knoll to another. Road be-
comes a cart road. Miles from Punta
de Cartas. 32.7

Trail branches south into hills, finally running into
Los Portales. Road continues southwest, descending
100 feet. 33.8

Road turns due west. 34.3

Cart road branches south, running to Montezuelo. 34.9

Trail to west (short cut through deep arroyo). Here
road turns to north to avoid arroyo and follows ridge
line. 35.2

Road turns northwest. 35.3

Trail joins from east (short cut). 35.8

Trail branches due west into part of Asiento Viejo,
while main road continues northwest into Asiento Viejo.
Road descends 200 feet to Río Mántua. 36.4

Asiento Viejo and Río Mántua. Asiento Viejo situ-
ated on the banks of the Río Mántua in a deep cut be-
tween the high hills. Río Mántua is 12 feet wide, 2 feet
deep; 4-mile current, fluctuation marks 8 feet; fordable,
approaches easy, and bottom gravel and rocky. River
has its source in the hills north of Asiento Viejo. A
bridge 30 feet long, 12 feet wide, made of wood with
wooden abutments. Flooring rotten; not in use; in
poor condition; could easily be repaired; spans the river
at Asiento Viejo. Two roads leave Asiento Viejo; both
are wagon roads. They join on the hills west of the
place, and road runs to Manaja. A cart road runs north-
west to Naranjo. A trail runs northeast to the road from
Pesquero to Manaja. A trail runs south to Los Ocujes.
Good camp site at Asiento Viejo for a small detachment. 36.9

Road (wagon road) turns nearly due north. In leaving
Asiento Viejo the road ascends 200 feet to the top of
the hills. 37.4

Ascends 50 feet and runs on ridge over numerous knolls. 38.8

Descends 50 feet. 41.0

Turns due west. Descends 150 feet and crosses a
small creek flowing south (branch of the Río Mántua). 41.3

A road runs north to Manaja. Continues west. 42.1

Turns south and enters La Jagua. Leaving La Jagua,
it runs west for 0.7 mile to the top of the ridge of hills.
Ascends 150 feet. 43.0

Road branches northwest and divides, one branch
running northeast to Manaja; the other runs northwest 43.9

Miles from Punta
de Cartas.

- to Pinar Oscuro. Road turns southwest on ridge. Telephone line from Pinar Oscuro to Cafetal joins and runs along the road.
- 45.3** Road crosses trail. Trail comes from the east from Naranjo and runs southwest to Cabezas de Horacio.
- 45.9** Road turns west and descends 50 feet. Trail branches southwest (short cut). Telephone line branches with trail.
- 46.1** Wagon road branches southeast. This road ascends 50 feet and at 0.3 mile from junction turns south. Trail joins it from northeast (short cut). Telephone line joins and runs along the road. Road continues south and at 1.2 miles from junction it circles a hill and turns southeast. At this point a trail branches southwest. (Trail cuts across to the Cabezas-Cafetal road.) Telephone line branches with trail. Road descends 150 feet and at 1.5 miles from the junction it divides. Both branches then join the Cafetal-La Jagua cart road. The main wagon road at the junction continues west, running through a dry pasture land.
- 47.5** Cabezas de Horacio.—Hog ranch. Trail joins from northeast from Naranjo. Wagon road branches west to La Ceja. A road runs south to Cafetal. Take road west. Leaving Cabezas de Horacio the road runs a little south of west through small hills.
- 48.1** Road runs around a hill.
- 49.0** Crosses a small creek flowing south.
- 49.4** Wagon road branches south to Mántua.
- 50.1** Wagon road branches southwest to Santa Isabel and Santa Ana. Road turns northwest.
- 52.1** Trail branches south to the Santa Ana road. Trail branches west to Navarro.
- 52.7** La Ceja.—A district consisting of a number of scattered houses and cultivated patches. Wagon road branches west to Navarro. Wagon road branches north and northwest to Dimas. Road turns east.
- 53.2** Road turns north.
- 53.8** Wagon road branches northwest and joins La Ceja-Dimas road. Road turns northeast.
- 56.2** Trail branches east to Portales on the Pinar Oscuro-Dimas road.
- 56.5** Ascends 100 feet and crosses the Pinar Oscuro-Dimas road, which runs northwest and southeast. Turns northwest and descends 100 feet.

Pueblo Nuevo (Verona).—Wagon road runs northeast to Bártolo. Wagon road runs northwest to Dimas. Wagon road runs southwest to La Ceja.

Miles from Punta de Cartas.

57.3

The road to Dimas then runs in a northwesterly direction from Pueblo Nuevo for 3 miles. Several small unimportant trails cross the road in this stretch running to a few scattered houses, surrounded by cultivation, on both sides of the road. On the outskirts of the town of Dimas is a small settlement on the Bártolo-Dimas road called San Francisco la Ceja. It is about 0.2 mile out from Dimas. Here the road is joined by a wagon road from the southeast, running from Mántua and other small towns. A small shallow stream crosses the Bártolo-Dimas road on the right of the tienda, and empties into the ocean 0.2 of a mile north of Dimas. The left of the road from La Ceja is lined with small houses. Between Pueblo Nuevo and Dimas there is a heavy growth of undergrowth, including many palm trees. These palms are used as telephone poles.

60.0

ROAD No. 7.

ASIENTO VIEJO—LOS OCUEJES.

General direction: SW. Distance: 7.8 miles.

IN GENERAL.

A small, narrow, well-defined trail running on the high ridges in a general southwest direction. Hills covered by a scanty growth of pine trees and grass. No houses and no cultivation. Practicable for pack animals only. No camp sites.

IN DETAIL.

Starting at the house, west of river, road runs southwest to Río Mántua.

Miles from Asiento Viejo.

Crosses Río Mántua (12 feet wide, 2 feet deep, 4-mile current, fluctuation marks 8 feet); fordable. Approaches steep, bottom gravel. Ascends 200 feet to the top of the most prominent ridge.

0.5

Turns southwest.

0.8

Ascends 100 feet and crosses several knolls.

1.5

Descends 100 feet.

3.2

Crosses the Montezuelo-Los Acostas cart road.

3.6

Gradually descends 200 feet and crosses a small stream (branch of the Río Frío) flowing southeast and reascends 150 feet.

4.6

Miles from
Asiento Viejo.

- Descends a steep slope 150 feet to another small stream, which it crosses. Stream is a branch of the Río Frío and flows southeast. Trail reascends 150 feet.
- 6.9 Descends 100 feet and crosses another small branch of Río Frío flowing southeast. Trail then reascends 100 feet.
- 7.8 Los Ocujes. Trail runs southeast to Guane; south to Guane-La Cana road; and northeast to Cafetal.

ROAD No. 8.

CABEZAS DE MONTIEL—PEÑA BLANCA.

General direction: NW. Distance: 9 miles.

IN GENERAL.

A fairly good dirt road in dry season, running between sierras, rough and hilly after passing point of sierra.

IN DETAIL.

Miles from
Cabezas.

- Leaves Cabezas de Montiel, going to the northwest.
- 1.0 Crosses Río Isabel María.
- 1.5 Turns to the north; passes through gap in the sierras.
- 9.0 From this point road generally rough and running through brush to Peña Blanca. No crossroads of any importance.

ROAD No. 9.

CACARAJÍCARAS—PIÑALILLO (SITIO DEL PINAR)—SAN JUAN DE SAGUA.

General direction: SW. Distance: 13 miles.

IN GENERAL.

The trail from Cacarajícaras (or Cacarajica) to Sitio del Pinar has been abandoned for about a year. Narrow, faint trail generally, steep and rocky in places, muddy and marshy in others. Better from Sitio del Pinar to branch to right at 7.4 miles. From this point very bad, muddy and steep. Stony in places. Through dense jungle all the way. The first and third parts would be difficult even for pack trains in the rainy season on account of the low marshy spots.

IN DETAIL.

	Miles from Cacarajícaras.
Leave Cacarajícaras by trail bearing southwest by west.	
Number of large rocks at the beginning. Trail branches short distance beyond. Go to the left, crossing small stream, rocky bed, about 8 feet wide. Water 12 horses.	
Dry rocky bed of stream. Small clearing on left.	0.3
Trail swampy. Getting rocky.	0.7
Trail branches. Go to left. For about 0.3 mile, the trail skirts a rocky cliff, 200 or 300 feet high, some 75 feet off on the left.	0.9
Trail branches. Go to the right. Jungle with very few palms. Timber up to 6 and 8 inches in diameter.	1.0
Dry bed small rivulet.	1.1
Dry rocky bed of small stream.	1.2
Dry rocky bed of small stream. Large scattered rocks on both sides.	1.3
Dry rocky bed of small stream.	1.6
Number of small palms on both sides. Trail rocky in places.	1.9
Trail branches. Go to right. Small pond on left just beyond.	2.0
Trail branches. Go to left.	2.3
Trail branches. Go to right. Rocky spot in trail.	2.5
Small rivulet. Trail for next 0.3 mile more open. Smooth and grass grown.	2.7
Dry bed of small stream on right. Cross the same short distance beyond.	3.0
Short, steep, rocky hill. Trail very faint at this point. Rocky cliff off to the right.	3.4
Cross small rivulet several times.	3.6
Small stream, 8 feet wide. Water 8 horses. Trail turns to right after crossing. Another small stream joins first one short distance beyond.	3.7
Rocky cliff on left. Trail rocky and narrow.	3.8
Trail follows partly dry bed of small stream, sandy bottom, then turns up a steep hill on the right, meeting another trail near the top. Go to the left. Large rocks on the left just beyond.	4.1
Faint cross trail. Go straight ahead down steep hill. Rivulet at the bottom.	4.6
Dry rocky bed of small stream, followed by two other streams joining the first at crossing. Water 10 horses.	4.8
Piñalillo (Sitio del Pinar). Follow around fence, keeping it on the right. Small trail on left. Continue in same general direction and take trail entering the jungle.	5.0
Cross two small rivulets.	5.1

Miles from
Cacarajcaras.

- 5.3 Rocky rivulet. Trail rocky for next 0.3 mile.
- 5.6 Dry rocky rivulet.
- 5.7 Trail on the left.
- 5.9 Cross two piny ridges. Large timber.
- 6.1 Mountains on the left.
- 6.5 Jungle. Steep ravine on the left.
- 6.8 Trail branches. Go to the left.
- 7.2 A few palms in the jungle.
- 7.3 Faint trail on the right.
- 7.4 Take small trail on right going down hill. This change of direction is important.
- 7.7 Two rivulets, partly dry, about 200 yards apart.
- 7.8 Small trail on the left.
- 8.0 Trail on right.
- 8.6 Eight-foot stream, rocky bed. Water 10 horses.
- 9.0 Sandy-bottom stream. Water 2 horses. Great many mud holes in this trail.
- 9.4 Small rivulet. Bad mud hole.
- 9.5 Large scattered rocks on left.
- 10.0 Scattered rocks and high, rocky cliff on left.
- 10.4 Bad mud hole. Rocky trail, in places.
- 10.6 Good trail coming in from right rear. Sudden change in the vegetation. Large and small trees with long, narrow, dark-green leaves.
- 10.7 Small trail on right.
- 10.9 Good trail on left. Main trail very damp. Light moss on the trunks of the trees. Soil, light red clay, with very few stones. High ridge on the left.
- 11.5 Trail marshy and muddy.
- 11.6 Trail on right.
- 11.7 Partly dry stream. Getting back to the ordinary jungle and clay trail.
- 11.8 Trail branches. Go to the right. Stream, rocky bed, 10 feet wide, short distance beyond. Water 8 horses. Trail on right and large rocks on both sides.
- 12.0 Cross trail. Large trail on left short distance beyond.
- 12.1 Jungle more open. Small clearing on left. Dirt trail.
- 12.2 Leaving jungle behind. Tall brush. Trail branches; go to the left. Small cultivated clearing on right. Dry rocky bed of stream, 10 or 12 feet wide.
- 12.3 Three trails; take center one.
- 12.5 Open grassy clearing, with about 6 shacks.
- 12.8 San Juan de Sagua.
- 13.0 Río San Juan de Sagua.

ROAD No. 10.

LA CANA (PART OF JUAN GÓMEZ) TO THE GUANE-LA CANA ROAD (NEAR NARANJAL).

General direction: N. . Distance: 5.3 miles.

IN GENERAL.

A fair wagon road not much used. Hills covered with a growth of pine trees and grass. In the vicinity of La Cana the land is cultivated. Through hills there is no cultivation and no houses. Slopes, with one exception, are gradual. Practicable for wagons with light loads. No camping sites.

IN DETAIL.

La Cana is a cultivated district at the foot of the hills and is a part of Juan Gómez. Juan Gómez lies about 1.5 miles southwest. Wagon road runs to Juan Gómez and one runs east to Guane. The road runs north from La Cana, entering hills. Ascends 150 feet. Miles from La Cana.

Joins the road from Guane to the Guane-La Cana road, 1.7 which comes from the southeast. Turns northwest and runs on this road.

Leaves this road (which continues northwest) and 2.0 turns north.

Descends 150 feet to small creek flowing southeast. 2.4 Crosses creek and reascends 200 feet to top of ridge. (Creek crossing is very difficult on account of large rocks and deep cut.)

Trail branches northeast to the Guane-La Cana road. 4.0

Road divides. Both branches run to the Guane-La 5.1 Cana road. 5.3

ROAD No. 11.

CANDELARIA—GINEBRA—SOLON.

General direction: NE. Distance: 7 miles.

IN GENERAL.

Passable for bull carts in the dry season and cavalry in the rainy season, over level and well-cultivated country.

IN DETAIL.

Crosses a wooden bridge over the Bayate River; a short distance beyond it crosses a stone bridge over a branch of the same stream. The first bridge is about 100 feet long Miles from Candelaria. 1.0

Miles from
Candelaria.

- and the second about 40 feet; both streams about 20 feet wide by 1 foot deep, good water, gravel and rock bottom. A good location for a large encampment of troops, wood and grazing plentiful. Road from there turns northwest and then north.
- 1.5** Road branches. One runs south for 0.2 mile, where it dwindles into a trail running east 2 miles to finca Valencia, crosses Río Juan (about 10 feet wide, running water, 1 foot deep, gravel bottom, good ford, good camp for battalion of infantry or cavalry, grazing good) and continues east 1 mile where it connects at finca Jagua with bull cart road running southeast to Punta Brava station on the Western Railway of Habana. From finca Jagua a good trail for infantry or cavalry runs north 3.5 miles to finca Solon. Main road runs north.
- 3.5** Finca Ginebra, where cart road ends. From this point a good trail for infantry or cavalry zigzags along the foothills.
- 7.0** Finca Solon. Here trail branches, one northeast along the foothills 2 miles to finca Purgatorio and from there to Cayajabos and the other runs north into the mountains, following the Juan River about 3 miles to finca Garduña, where it connects with trails running to Cayajabos on the east via fincas Barbón and San Isidro and on the west with fincas Santa Paula and Casa Blanca and from there running north to Ceiba and on to Bahía Honda, or continuing on west to El Tumbo and El Brujo.

ROAD No. 12.

CONSOLACIÓN DEL SUR—ALONZO ROJAS.

General direction: SE. Distance: 15 miles.

IN GENERAL.

Over its northern half (to the crossing of the Santa Clara at Paso de los Mangos) road is well traveled and of sand and gravel surfacing. South of the above-mentioned river crossing the road runs over open savanna land and low ground, evidently swampy during the rainy season.

Escort wagons could easily make this trip in the dry season. Over the southern half, the road would be difficult for ox-cart traffic during the rainy season. The Santa Clara River is bridged at Paso de los Mangos.

IN DETAIL.

Leaves town to the southeast by calle del Sur (road to railroad station). Miles from Con-
solación del Sur.

Leaves calzada bearing off to the southwest to kilometer post 155. This stretch from the calzada to kilometer post is waterwashed in places, but is high and with little work could be quickly put into good condition. Immediately south of kilometer post 155 is a low piece of ground of swampy character which may be difficult in the rainy season. 1.0

Leaving kilometer post 155, road ascends to ridge south of railroad by a very badly waterwashed route. This portion would need some repairs to prepare it for wagon traffic. 1.4

Crosses ridge and descends by easy slope into a depression between two hills. Road east to Punta Santa Clara. 2.3

Trail east to Punta Santa Clara. 2.8

Small pond west of road. 3.3

Road south to Colmenar. 3.6

Crossroad (Puerta de Golpe and Hato Quemado) Road now enters pine region, heavy with sand but well traveled. 4.1

Road southeast, short cut to Paso de los Mangos bridge, in very poor condition for wagons or ox carts. 5.0

Crossroad, Colmenar, Paso de los Mangos. This road is in pine region and well traveled. Continue to Paso de los Mangos via this road. 6.4

Road crosses dry stream bed, of little importance, easy approaches, and very little waterwashed. Road from here to Paso de los Mangos bridge over low savanna land, badly cut up and very difficult for any kind of transportation during rainy season. 7.8

Crosses Santa Clara River, Paso de los Mangos bridge. 8.3

Road turns abruptly south over low savanna land, swampy in rainy season. 8.5

Road crosses small dry stream bed, a 2-foot depression. 9.0

Small lake a few hundred yards west. 9.4

Small lake a few hundred yards west. 9.9

Crossroad from Las Vegas, another lagoon with swamp growth east of road. Thicket a few hundred yards west of road. 10.6

A small lagoon surrounded by heavy swamp growth on east side. 11.7

Road now turns southwest, savanna land east, thicket west of road. Road now almost invisible and difficult 12.0

Miles from Con- to follow. Continuing south the ground is lower and
solación del Sur. swampy.

- 13.3 Road crosses small dry stream bed, approaches easy through cuts 3 feet high. Stream bed of sand and gravel, banks 20 feet wide, evidence of depth of 3 feet or more during rainy season. Continuing, the road follows this stream bed. Road now badly cut up and waterwashed.
- 14.0 Here road turns southeast, swamp and thicket to the east. Trail northwest to Colmenar.
- 14.7 Road now turns southerly over savanna land covered with small growth of thicket. Road now in fair condition, well traveled though soil is heavy and clayey, and road probably difficult in rainy season.
- 15.0 Road enters town of Alonzo Rojas.

ROAD No. 13.

LAS CRUCES DE ABALOS—MONTEZUELO—LOS ACOSTAS.

General direction: NE. Distance: 28.4 miles.

IN GENERAL.

1. Las Cruces de Abalos to Montezuelo, unimportant dirt road running northeast through a line of hills. From a point west of Montezuelo Hills it is a wagon road, good condition; very little cultivation; country covered with sparse growth of palms; brush along streams.

2. Montezuelo to Los Acostas. An old cart road. Has not been used except as a trail for a long time. Has been used as a cart road and can still be used as one. Many steep hills with heavy grades. Practicable only for carts and pack animals. No water along its entire length. Runs in a general northeast direction over main ridges. Hills covered with pine trees and grass. No camping sites.

IN DETAIL.

Miles from Las
Cruces.

- Leave Las Cruces de Abalos, a vega.
- 0.4 A road south to Guayabo.
- 3.4 Santa Lucía is a small finca. Before reaching this place the road runs parallel to the Mántua River and is a wagon road over a hard bed of sand.
- 4.4 Ascend a ridge, direction northeast.
- 4.8 High point. The road runs east. Trail to north to Lázaró and Mántua and south to Guayabo.

Two southern tiendas of Montezuelo. From here to the northern tienda of Montezuelo is 2 miles, over which road you cross a small stream, deep and sluggish, 15 feet wide. Two branches leave Montezuelo, joining the hills. The main one leaves at the tienda and runs northeast. The other one leaves at the creek and, running north, joins the first one. They both ascend 200 feet.

Miles from Las Cruces.

5.8

7.8

Two branches join the road running northeast. 9.7

Road ascends 50 feet; runs along top of ridge. 10.5

Trail branches southeast and runs to Tenería, on the Guane-Mántua road. 11.0

Trail branches a little north of west and runs to Naranjal (3 miles). 12.2

Road ascends 50 feet. 12.7

Turns east. 12.9

Ascends 100 feet. 13.0

Joins the Guane-La Cana trail and runs east on it. 13.7

Leaves the Guane-La Cana trail and turns northeast. 14.3

Crosses three 100-foot hills.

Crosses the Guane-Cafetal trail, which runs northwest and southeast. 16.6

Turns east and descends 100 feet and reascends 100 feet. 18.3

Crosses the Asiento Viejo-Los Ocujes trail, which runs northeast and southwest. 19.0

Turns north. 22.2

Joins the Los Acostas-Asiento Viejo road, which runs east and west. 23.7

Turns east on this road and runs 4.7 miles to Los Acostas. 28.4

ROAD No. 14.

CRUZ DEL PINO—MACURIGES.

General direction: NE. Distance: 3.2 miles.

IN GENERAL.

A wagon road over level country. There are many good camp sites in the Macuriges valley.

IN DETAIL.

Leaving Pino the road runs north and northeast.

Miles from Cruz del Pino.

About 0.2 mile out of Cruz del Pino a small, shallow, fordable stream crosses the road, flowing northwest (Arroyo Piedras). 0.2

Miles from Cruz
del Pino.

- About 2.5 miles from Cruz del Pino a wagon road coming from the southeast crosses the road and continues in a northwest direction (the Bártolo-Santa Paula road). At these crossroads are a house and several large sheds. This place is called Yaguasas. The road then continues in a northeast direction for about 0.7 of a mile into Macuriges. Macuriges consists of a number of scattered houses and one tienda, painted white. The road which crosses the Cruz del Pino-Macuriges road about 2.5 miles out of Cruz del Pino is a road which leaves the crossroads (about 1 mile west of Bártolo). From here it runs northwest for about 0.2 mile, where a small, shallow, fordable stream, flowing north, crosses the road. It continues in the same direction for about 0.7 mile, where it crosses the Cruz del Pino-Macuriges road at Yaguasas. From here it runs northwest to Santa Paula (about 0.5 mile).

ROAD No. 15.

FROM 1 MILE EAST OF CUATRO CAMINOS—LA PALMA (CONSOLACIÓN DEL NORTE).

General direction: SE. Distance: 5 miles.

IN GENERAL.

A cart road following ridge line along the coast through light growth of pine. Road bed firm clay and sand. Many long steep grades, some difficult. This road is used during the rainy season.

Miles from 1-mile
point east of
Cuatro Cami-
nos.

IN DETAIL.

- 0.2 Trail to northwest to Berracos and Cuatro Caminos. Ascends ridge; grade, 10°.
- 1.5 Cross trails, north to tienda Guayacán on Río Blanco.
- 2.1 Turns southeast.
- 3.2 Trail to northeast to Río Blanco. Ascends ridge; grade, 15°.
- 3.3 Crosses Río Blanco (Río Guacamayas) near deserted farm house. Large pasture here. Excellent camp ground. River crossing good; banks 4 feet and sloping; bottom, sandy; depth, 10 inches; width, 20 feet. Passes through a gate.
- 4.0 Trail to northeast to Río Blanco. Turns southwest.
- 4.7 Turns southeast and joins road to La Palma.
- 5.0 La Palma.

ROAD No. 16.

LA FURNIA—BRUJO—NARANJAL—VEGA DE MORALES—QUINTANA—
 SAN DIEGO DE TAPIA—SABANILLA—TORO—MAMEYAR—CHAVAR-
 RÍA—SAN JUAN DE SAGUA—CAIMITO—CATALINA—SAN DIEGO DE
 LOS BAÑOS.

General direction: SW. Distance: 58 miles.

IN GENERAL.

This trail is practicable for pack train and is very mountainous. There are only three trails leading west into the mountains; the one mentioned; one which leads west from Aguacate (or Quiñones) to Cacarajícaras and from there to Sagua, connecting there with trail to Caimito (there is also a trail from Cacarajícaras south to San Diego de Tapia), and one from the large finca of Rosario west to Rangel, and from there west to Sabanilla, connecting there with trail for Toro.

IN DETAIL.

La Furnia is a coffee plantation. During the rainy season to go to Brujo from La Furnia it would be necessary to continue northwest 3 miles to San Blas, then 5 miles southwest to Brujo. During the dry season trail follows dry run up steep slope.

“Horseshoe” ridge, located between Los Hoyos and Brujo. Trail continues west. 1.0

Brujo.—Trail continues west. 5.0

Naranjal. Trail runs southwest. 7.5

Trail divides at Vega de Morales. Both trails run into the Bahía Honda-Quiñones-Vega de Morales-San Cristóbal trail about 500 yards beyond and about 0.2 mile apart. Take trail running west. 9.5

Bahía Honda-San Cristóbal trail; continue south over this trail. 9.7

Trail branches to the northwest along ridge overlooking valley to the south. Trail takes a general westerly direction and is a good mountain trail. 10.0

Vega Portal. 12.5

Quintana River. The river is about 50 feet wide in places, filled with large rocks, running water of excellent quality, about 1 foot deep at ford by 25 feet wide, rock bottom; during the rainy season it could not be forded. Trail follows along bank of river. 13.0

Crosses river. 14.7

Miles from La
Furnia.

- Quintana, where a tributary stream empties into the main stream. The main stream flows in a general north-easterly direction. At Quintana there is a sufficient cleared ground for a battalion of troops to camp, water and wood plentiful, grazing good. Trail runs southwest through a valley along the west bank of the river.
- 15.0 Vega San Diego de Tapia is situated on south slope of Sierra de Cacarajícaras. There is a trail running south from there about 4 miles to Rangel; this trail, however, is not very good. Trail leaves south across the Quintana River.
- 18.2 Trail crosses river, continues southwest through valley.
- 19.0 Ascends long steep mountains (Sierra del Rangel and Sierra la Comadre).
- 21.0 Reaches top of mountain, then descends steadily.
- 22.7 Trail comes in from the east from Rangel about 4 miles distant. Trail runs west.
- 23.0 Vega Sabanilla. The trail to Rangel continues from there east to El Rosario, where it connects with trails to Candelaria, San Cristóbal, Bahía Honda, El Tumbo and Brujo. Trail follows a general southwesterly direction, well defined with no branch trails.
- 27.5 Toro (old Realengo del Toro) is a tobacco plantation of about 10 houses. The only open trail leading out of Toro runs southeast about 5 miles through the foothills to La Sierra, where it connects with roads to San Diego de los Baños, Taco Taco, and Los Palacios. The trail from Toro northwest to Chavarría via Mameyar was at one time a good mountain trail; it has not been used for a long time and is not populated. Trail leads west, ascending steadily along side of ridge.
- 30.5 Trail badly worn off on side of ridge so that it is dangerous for animals to pass. Trail continues along side of ridge.
- 30.7 Trail descends.
- 31.2 Mameyar. There is a small stream at Mameyar, 10 feet wide by 6 inches deep at ford, shallow banks, gravel bottom, running water. Trail runs northwest, ascending steadily; it is frequently blocked by trees, vines, and brush.
- 33.7 Top of ascent is reached and trail descends steadily.
- 34.0 Dry river bed. The trail continues down this river bed, crossing from one bank to the other.
- 34.5 Water in river bed; trail follows river, crossing it at intervals; fords rocky, river gradually widens and deepens

from 25 feet wide by 6 inches deep to 50 feet wide to 3 feet deep at fords, with numerous places where river is 10 feet deep. At Chavarría it is called Río Chavarría and at Sagua Río Sagua. Miles from La Furnia.

Chavarría. Trail runs northwest. 38.0

Crosses branch of Río Sagua (20 feet wide by 1 foot deep). 38.5

Crosses Río Sagua (Río San Marcos), 50 feet wide by 3 feet deep, gravel bottom, running water, low banks. Trail becomes a wide cart road, ascends sharply along side of ridge. 40.5

San Juan de Sagua is a large tobacco plantation and settlement. This is a good location for a regiment to camp. From Sagua a good trail runs north about 7 miles to the village of La Mulata, connecting there with dirt road to Bahía Honda. Trail runs south over rolling country. 41.0

Caimito is a tobacco plantation. Trail ascends steep hill and continues south over rolling uncultivated country; hills covered with thin growth of pine. 46.0

La Catalina is a large tobacco plantation. At Catalina the trail crosses a branch of the San Diego River (20 feet wide, 1 foot deep, gravel bottom, shallow banks, running water). Trail ascends steep hill and continues south. 55.0

San Diego de los Baños. 58.0

ROAD No. 17.

MÁNTUA—CABEZAS DE HORACIO.

General direction: NE. Distance: 14.4 miles.

IN GENERAL.

A good wagon road over the western hills. Hilly, but slopes are gradual. Cultivated around Mántua. Scattered houses in cultivated section near Mántua. Very few houses along the road. No cultivation except near the houses. Hills covered with pine trees and grass. Light underbrush in the arroyos. Practicable for all classes of transportation. No camping sites.

IN DETAIL.

Leaving Mántua at the monument on the Plaza, the road runs north on the Mántua-Santa Isabel road to a small creek flowing southeast.

Miles from
Mántua.

- Here the road becomes a cart road and turns eastward
- 0.5 and crosses creek. Crosses a 50-foot hill and another small creek flowing south. Mántua-Santa Isabel road runs northwest from first creek.
 - 1.4 Joins the Mántua-Naranjal road and runs northwest on this road.
 - 2.5 Naranjal cart road branches east. Wagon road continues northwest, gradually ascending 150 feet.
 - 2.8 Trail branches north to three houses.
 - 2.9 Trail branches northwest (short cut).
 - 3.8 Crossroads. Wagon road branches south to Mántua. Wagon road branches southwest to Mántua-Los Arroyos road. Two wagon roads branch northwest to Santa Isabel (joining about 1.5 miles from the crossroads). Road to Cabezas de Horacio now runs a little north of east.
 - 4.7 Trail joins from south (short cut).
 - 5.3 Trail branches to the east to two houses.
 - 5.7 Trail branches to the west to three houses and east to one house.
 - 7.1 Cart road branches north to Santa Ana.
 - 8.3 Cart road branches southeast to La Cana. Road turns north.
 - 9.4 Crosses the Cafetal-Santa Ana road, which runs east and west. Road continues due north, gradually descending 100 feet.
 - 12.5 Joins the Cabezas de Horacio-La Ceja road. Turns east on this road.
 - 14.4 Cabezas de Horacio.

ROAD No. 18.

VIÑALES—SAN ANDRÉS.

General direction: E. Distance: 9 miles.

IN GENERAL.

From Viñales to San Andrés there is a wagon road, in parts impassable except for pack transportation. The wagon road proper has easy grades, firm, sandy-clay surfacing, about 16 feet in width, and could be easily kept in good condition. Passing the one stream of any importance after leaving Viñales, the road runs to Ceja Ana de Luna. Road passes through flat country. Width of road, 16 feet; road-bed here is soft loam, difficult under influence of rains; no grades. From Ceja Ana de Luna to San Andrés the road passes through hills along ridge.

IN DETAIL.

 Miles from
Viñales.

One-fourth mile out of Ceja Ana de Luna road divides; take road to left; width of road, 8 feet; surfacing, red clay and sand. 4.2

Cultivation and pasture land to Ceja Ana de Luna; low land grass and very coarse. Country not thickly settled. Road to La Jagua from Ceja Ana de Luna leaves main road to north just before reaching tienda and joins other road 2 miles to northwest. Good wagon road; grades easy to said junction. 4.5

Many grades, but none difficult until road descends ridge within 2 miles of San Andrés. 7.0

No streams until crossing San Diego River (or Caiguanabo) at San Andrés. 9.0

ROAD No. 19.

VIÑALES—SAN ANDRÉS (VIA HILLS).

General direction: E. Distance: 11.3 miles.

IN GENERAL.

Up to 7 miles the road is a good wagon road, earth surfacing, about 5 feet wide and could be made wider. It is practically level and is sandy and firm. The trail from 7 miles is passable for carts, but not for wagons. Most of the traffic passes by way of Ceja Ana de Luna. The San Andrés valley is cultivated and contains many scattered houses. The roads in the valley are good level wagon roads.

IN DETAIL.

 Miles from
Viñales.

This road branches to the east from the Viñales-Pinar del Río road, about 0.5 mile out of Viñales at the summit of the first line of low hills, Cuchilla de los Gavilanes. It crosses the sandy waste lying between the Viñales valley and the high hills in an eastern direction. 0.5

Crosses the Viñales-Piñalillo road. 2.5

Crosses a creek flowing south into Río Hondo. Creek is about 6 feet wide, 2 feet deep, has a 4-mile current, is fordable, approaches easy, bottom soft, fluctuation marks 2 feet; water supply ample and of good quality. 4.0

A wagon road branches in a northeast direction for about a mile to Ceja Ana de Luna, where it joins the main valley road from Viñales to San Andrés. The road 4.7

Miles from
Viñales.

- then runs for about 1.5 miles to the foot of the high hills, where there are about 6 scattered houses to the right and left of the road. There are small cultivated patches near the base of the high hills. At the foot of the high hills a trail runs to the first ridge (slope 0.5 mile; grade 40 per cent) in a southeast direction. It then runs east.
- 8.0 Trail from the southeast (from Pilotos valley).
- 9.0 Trail joins from the southeast. The trail here turns northeast and leaves the ridge and runs into the San Andrés valley. (Slope 0.2 mile, grade 10 per cent.) About a mile from the hill the trail divides into two trails. One trail runs nearly due north for about a quarter of a mile, where it develops into a wagon road which runs into
- 11.3 San Andrés.
- 11.5 The road crosses a small fordable branch of the Río San Diego, which flows southeast.
- 11.8 Road crosses the Río San Diego, which flows eastward. The river is about 8 feet wide, 3 feet deep, has a 4-mile current, is fordable, approaches steep but firm high banks; fluctuation marks, 6 feet. Water supply ample and quality good.
- 12.5 The other trail (mentioned at 9 miles) continues to the northeast for nearly a mile, where it joins the San Andrés-Pilotos road (via Arroyo de Agua), about 1.5 miles from San Andrés. The country in the high hills is uncultivated and is covered with pine trees. Good camping site near the San Diego River for a squadron. Water and grass in abundance and fuel in the hills. Río San Diego is also known as Río Guacamayas.

ROAD No. 20.

LOS PALACIOS—TACO TACO (SOUTH OF RAILROAD).

General direction: NE. Distance: 10.1 miles.

IN GENERAL.

A fair dirt road in the dry season, passable for light loaded wagons; impassable except for men on foot in the rainy season. The road runs northeast over level uncultivated swampy country. Good grazing land.

IN DETAIL.

The road crosses the railroad at Los Palacios and continues northeast; wire fences to the west. Road perfectly straight. Miles from Los Palacios.

Río Manso, 8 feet wide by 1 foot deep; low banks, gravel bottom. Road continues northeast. 4.7

Crosses Laguna Majagua. This little lake is about 100 feet wide, 2 feet deep at the ford, with gravel bottom. Impassable in rainy season. At finca Serafina a road joins it from the west which connects with the road from Santa Cruz de los Pinos to Los Palacios on the north side of the railroad. At this point road turns west for a short distance, then circles northwest. 5.2

Crosses Río Bacunagua, 8 feet wide, 6 inches deep, steep banks cut to ford, gravel bottom, running water. 6.5

Swampy ground begins. Road crosses swamp, dry during dry season but impassable in the rainy season. 7.5

Ground becomes higher leaving swamp. 8.5

Road connects with road from the east from finca La Angostura, about 5 miles distant; the road descends and crosses the Taco Taco River. The river is 50 feet wide, 1 foot deep, gravel bottom, high banks cut to ford. 10.0

Taco Taco. 10.1

ROAD No. 21.

PASO REAL DE SAN DIEGO—SAN PEDRO DE LAS GALERAS—SAN DIEGO DE LOS BAÑOS.

General direction: NW. Distance: 9 miles.

IN GENERAL.

A good dirt road for first 5 miles, but quite steep in places, with evidence of badly washed ruts in rainy season.

About 5 miles out joins calzada from San Diego de los Baños, which is in excellent repair, with all streams and gullies crossed by substantial steel or stone bridges. It is well drained and would be excellent for wagons at all seasons.

IN DETAIL.

Leaves town to the north; road sandy for first mile. Miles from Paso Real.

Goes through town of Paso Real Viejo. 1.5

Road ascends by gentle slope; oranges and pineapples in cultivation for about 0.5 mile on right. 2.0

Miles from Paso
Real.

- Cemetery on left. Valley to west about 150 feet below the level of road. Excellent grazing on both sides of road.
- 2.5
- 3.0 Large tobacco plantation on right, after passing which the road descends 50 feet into gully and up other side and again goes down hill. The hills are about 200 yards and quite steep—about 0.2. The gullies contain no water now, but débris in bottom shows that the rainy season affords a plentiful flow, in places at a depth of 5 feet or more.
- 4.0 After entering second gully, the road continues north for 300 yards and then, still following the bottom, turns sharply to the left and descends by gentle slope into the lowlands to the west.
- 4.5 Turns again sharply north, crossing the now dry bed of stream and begins ascent into foothills.
- 5.0 Meets macadam road from San Diego de los Baños.
- 5.5 Turns sharply to left and continues west for 600 yards along ridge 100 feet above valley to the north. This ridge commands the entire valley and San Diego de los Baños can be seen in the distance.
- 6.0 Turns sharply to right and descends to calzada by very steep slope difficult for pack animals and impossible for wagons; however, a calzada will be finished at this point and this grade, the only present obstacle to wagon transportation, will be eliminated. Small tienda where road joins calzada.
- 7.0 The calzada presents no especial feature other than that of an exceedingly well-built, well-repaired, well-drained, well-graded, clean, macadam turnpike. There are numerous little tobacco farms on either side of the road for the remaining 2 miles into San Diego de los Baños.
- 8.0 Small tienda.
- 9.0 Road enters San Diego de los Baños.

ROAD No. 22.

SAN CRISTÓBAL—HACIENDA EL BRUJO—CAYAJABOS.

General direction: NE. Distance: 41.5 miles.

IN GENERAL.

A good cart road for half a mile, and from there on nothing but a trail.

IN DETAIL.

 Miles from San
Cristóbal.

Road leads north from San Cristóbal, crosses Las Cruces, a sitio; trail continues to San Cristóbal River. There is an island in the center of the river where trail crosses about 60 feet long by 30 feet wide; river on one side about 20 feet wide, 2 feet deep; on the other, 10 feet wide, 1 foot deep; gravel bottom, high banks cut to ford. Continues north to low ridge of hills, then northeast along foot of ridge for 0.5 mile, then turning northwest and ascending short distance, descending through foothills to small stream (Río Hondo), ascending two small ridges, then ascending to where trail branches, one west to Soledad and El Tumbo. Trail to Brujo goes up steep rocky ascent, general direction about 15 points west of north, to vega Pancho Blanco; trail crosses Río Hondo, continues along river for 0.2 mile to a store called "tienda de Zinc." Trail branches here, one leading off northeast to Los Hoyos and Saroa, one to northwest to Brujo Abajo. Trail to Brujo Abajo crosses stream several times, following along bank of same to La Esquina, continuing along stream, crossing several times, to finca Río Hondo. Houses would accommodate about 50 men; grazing and water good. Trail continues northwest through valley, crossing Río Hondo several times in places where the river bed is dry, to house. Here trail divides, one to left to El Tumbo, and the other continues to Brujo Abajo via Benito Salabaria, where trail again divides; one to left to Brujo Abajo and El Tumbo, one in center to cafetal El Brujo, one to right to Los Hoyos. The trail, however, to cafetal El Brujo is not practicable for pack train; the main ascent is very steep, and after reaching the top of the ridge the trail is extremely narrow and at about 3 miles from house mentioned connects with trail from Brujo Abajo to Los Hoyos on top of a high ridge shaped like a horseshoe. From the house of Benito Salabaria trail to Brujo Abajo continues northwest of stream, passing several shacks, finally crosses stream, and ascends steep hill; zigzags to top, continues along ridge, winding around valley to the northwest. Trail descends to stream and Brujo Abajo; water and grazing good. Just before last descent trail branches to left to El Tumbo. Here trail to Brujo Arriba leads off northeast for 0.7 mile, crossing stream several times, and then turns southeast. At this

1.2

2.7

5.0

6.0

6.2

6.7

7.5

8.0

8.2

8.7

11.5

Miles from San
Cristóbal.

- point trail branches off to San Blas. Trail to Brujo
- 12.2** Arriba continues through valley in an easterly direction
- 13.7** and ascends to Brujo Arriba, which consists of a large frame house. Trail zigzags up slope along ridge to top
- 15.0** of Brujo Mountains to point where it connects with horse-shoe ridge, where trail comes in from cafetal El Brujo; trail curves along on top of ridge, then descends a short distance to Los Hoyos. There is a trail leading from
- 16.5** Los Hoyos southwest down the valley back to tienda de Zinc; descent is very sharp into valley. This trail runs direct to tienda de Zinc through valley, which is circled by horseshoe ridge. Trail from here leads north-east, ascends steadily to ridge, continues east along ridge. From top of this ridge north coast can be seen, and
- 17.2** bearing directly north from here is an ingenio with what appears to be the ruins of a town between ridge and
- 18.5** ingenio. From ridge trail descends steadily to Saroa. From Saroa a trail leads north to Lola, Moreno, and San Blas. Trail to Ceiba descends along ridge lined on one side by a stone wall for 0.2 mile, crosses small stream
- 19.5** twice, where trail divides, both going to Candelaria through different passes. One leaving southeast is a broad, well-defined trail, which shows evidence of having been at one time a fairly good road, goes direct to Candelaria, about 5 miles distant. The other trail turns north-east through cafetal Entrada, ascends east along ridge, circling over ridge descends gradually, turning north-west past finca Bebing, circling northeast to small stream; good water and grazing. Two hundred yards beyond trail branches, one leading off a little north of east goes to Candelaria, the other trail continues on north for 0.2 mile, where it joins the Ceiba trail leading northeast, continuing along this trail, ascending steadily through
- 20.0** Merced; ascent continues northwest to top of long ridge,
- 23.5** then descends steadily to Casa Piña. Continues in a
- 24.5** northerly direction to Buena Vista. From this point Cabañas Bay can be seen directly north. Here trail runs into well-defined trail running east to Cayajabos, continuing east for about 400 yards, where a branch trail
- 25.0** runs northeast and continues along this trail to Ceiba, where it connects with a broad trail running east and west. The one west goes to San Claudio, and the one east to Cayajabos, connecting with the other Cayajabos trail described above. Ceiba was at one time a grinding ingenio. It is now an entire ruin. Broad trail running

east circles to southeast 1 mile to Esperanza, where it is completely blocked by wire fencing. The Cayajabos trail, following this trail east for a short distance, then branches north and follows a general northeasterly direction to small stream, crosses same, turns east to Salacain, leaves northwest, crosses dry run, circles around on ridge to point where north coast can be seen, descends sharply to lower ridge to Tapia. Trail leaves, crosses small stream, ascends ridge circling to east to point where trail runs northwest to San Claudio. To go from this point to Cayajabos by trail it would be necessary to follow this trail to San Claudio in order to connect there with trail leading direct to Cayajabos via Rosario, or return to point where we left Cayajabos trail. From this point, however, cut through brush and fences, taking a general southeasterly direction for about 2.2 miles, to the San Claudio-Cayajabos trail. It is broad and well defined and quite rocky. From this point it is about 9.2 miles to where it connects with the Cabañas-Cayajabos trail and about 13 miles to Cayajabos. Trail continues southeast for about 1.2 miles, then east across one ridge, ascending a second ridge to finca Ebisceino, ascends ridge, descending gradually crosses a couple of small hills, turns north, ascending slightly, follows northeast along ridge to Ramona, continues east along ridge, descends steadily to small stream flowing northeast. Trail and valley wind east, crossing several small hills and connects with Cabañas trail about 2 miles from where trail branches, going to Barbón and about 3.5 miles from Cayajabos. Cabañas trail is broad and well defined and continues southeast to San Isidro, where trail leaves northeast for Guanajay and trail a little east of south 1 mile to Cayajabos. At Cayajabos trail connects with calzada to Artemisa.

Miles from San
Cristóbal.

25.5

72.2

29.5

32.2

34.2

38.0

40.5

41.5

ROAD No. 23.

COLOMA—MARCOS VÁZQUEZ—PILOTOS.

General direction: N. Distance: 42.5 miles.

IN GENERAL.

1. Coloma to Marcos Vázquez.—A fairly good dirt road in the dry season, and then passable for all classes of transportation. In rainy season impassable for anything but pack transportation, and even

that would have difficulty because of flat and marshy nature of surrounding country, there being not a single rise in the ground throughout.

2. Marcos Vázquez to Pilotos.—A good dirt road runs through a generally flat country. Passable in the dry season for all classes of transportation; in rainy season for pack transportation and native bull carts.

IN DETAIL.

Miles from
Coloma.

- Leaves Pinar del Río-Coloma road at kilometer 23 and runs almost due north.
- 3.0** Crosses Arroyo Flamenco at Paso del Flamenco, a small creek; good water, camping ground for troop, a little grazing.
- 8.0** Crosses small stream. (Laguna Campantarrás region.)
- 10.5** Lake Juncos; a large lake to left; 0.7 mile long; water fresh, lake deep.
- 11.5** Joins Pinar del Río-Marcos Vázquez road. This road is intersected by many crossroads of the same general character. They are of no importance; those to the west connecting with the Pinar del Río-Coloma road, those to the east running to the San Lorenzo ranch about 12 miles southeast of Pinar del Río. There is no cultivation and no house along the entire length, the entire country being covered with a growth of scrub pines and palms. Road runs in a northerly direction, leaving Marcos Vázquez across bridge over Paso Viejo River. Truss work of this bridge, which is 50 feet long, 30 feet high, is of iron and in good condition; flooring of wood, in bad repair. No ford in vicinity. Banks of river are steep, gravel bottom; in dry season 15 feet wide, 4 feet deep, current about 1.5 miles per hour.
- 12.7** Bad mud hole in road.
- 13.7** Crossroads; To west to Las Ovas, to east to Consolación del Sur. Country very flat, sparsely settled, a little cultivation on right; on left wooded and uncultivated.
- 14.2** Crosses small stream, Río Jucaral. Several small lagoons scattered on either side of road.
- 15.5** Crosses small stream and enters town of Puerta de Golpe.
- 15.7** Crosses railroad at kilometer 161, direction changes to northwest. Branch road continues north to Consolación del Sur.

Tienda of La Jagua.—Crossroads from Pinar del Río to Consolación del Sur. Country sparsely settled, little cultivation. Road continues northwest. Miles from Coloma. 18.7

Tienda on left. 20.2

Tienda on left. Country rolling to northeast, more fertile, generally under tobacco cultivation on both sides of road. 20.7

Road runs north; branch road to west runs to Pinar del Río and Viñales. 23.2

Branch road runs west to Pinar del Río. 24.0

Pilotos, a town at foot of mountains. There is a single wire telephone from Puerta de Golpe to Pilotos, which is connected by wire with Consolación del Sur, situated about 1.5 miles northeast of La Jagua. 24.5

ROAD No. 24.

COLOMA—SAN LORENZO—MARCOS VÁZQUEZ—PINAR DEL RÍO.

General direction: NE. to San Lorenzo, and NW. to Pinar del Río. Distance: 29 miles.

IN GENERAL.

1. From Coloma to San Lorenzo the road runs through flat country, covered with scattering pines, palmetto, and coarse grass. Transportation could pass through it in any direction in the dry season. The coarse grass that abounds furnishes good grazing after having been burned off and while the new growth is young and tender. The road is dirt, and its condition is fair during the dry season. Wagon transportation could pass over it, but loads should be greatly reduced. Along the route the following streams are crossed: Flamenco, Manguito, and Colón, the latter crossing known as Paso del Encino. They have good running water, sandy bottoms with good camping places on all of them in the dry season. The country around Coloma is low and a great part swampy.

2. San Lorenzo to Pinar del Río.—From San Lorenzo the road bears generally about northwest via Marcos Vázquez to Pinar del Río. It is an ordinary dirt road in fair condition in the dry season and good for wagon transportation. In the rainy season it would probably be impassable. Vegas border it on each side. A number of small creeks are crossed, any of which would furnish water for the horses of a regiment.

IN DETAIL.

Miles from
Coloma.

- 1.2 Road leaves calzada running generally northeast. Gradually rises; waste land; pine trees.
- 3.2 Good watering place. Flamenco Creek.
- 4.7 Cross Manguito Creek. Barbed-wire fence to right of road.
- 7.5 Pasture and palms. Campantarrás lagoons to the left. Road runs to right through gate in fence. Before entering gate, first road to left is to kilometers 17 and 13 on calzada (Pinar del Río-Coloma). Second road to left is to kilometer 8. After entering gate, road to left is to Marcos Vázquez, Las Ovas, and Puerta de Golpe. Cross several water holes and swamps in Laguna Campantarrás region. Most of these water holes have running water and sandy bottoms.
- 9.7 Cross Río Colón at Paso del Encino. Three trails: One to right to Colón; one to center is the public road of the south, passing through kilometer 13, Punta de Palmas and Alonzo Rojas; third runs to San Lorenzo, continuing almost straight, the direction being about 20° north of east.
- 12.3 Gate; house to left; road turns north at this point.
- 13.0 Farm on right. Leaving ranch, barbed-wire fence to right and left. Two houses. Tobacco and pasture.
- 14.0 Barbed-wire fence continues on each side of the road; houses to right; left, fine pasture lands.
- 15.0 Cluster of houses on right; lake to right. Cross small creek at this point; good watering place.
- 15.5 Small creek.
- 16.0 Left, tienda La Reguladora. Chamizo, Laguna Negro to left beyond tienda.
- 17.0 House to right; lagoon to right (Laguna Chamizo), creek crosses road, good clean water, sandy bottom, never dry.
- 18.5 Marcos Vázquez. Right, road to Puerta de Golpe; road to left divides into two; one to right to Las Ovas; one to left to Pinar del Río.
- 19.7 High ground to left from which Consolación del Sur can be seen to northeast of Laguna Juncos.
- 20.2 Water hole; road to left to old sawmill; to right to Las Ovas. Grass and palms; fertile valley; railroad to right.
- 24.0 Small creek.

Pass under railroad through culvert; vegas to right;	Miles from
railroad cut to right; two railroad culverts, one on each	Coloma.
side of crossing.	26.7
Road crosses small rivulet; grass cultivated land.	27.0
Tienda La Defensa; outer edge of Pinar del Río; road	28.0
to right rear leading to Consolación del Sur.	
Wooden bridge over Río Guamá; 100 feet long and 24	28.5
feet wide. Ice plant to left. Earth works east side,	
sand bag revetment. Blockhouse to right.	
Pinar del Río.	29.0

ROAD No. 25.

HERRADURA—EL CANAL—CARABALLO—SAN DIEGO DE LOS BAÑOS—
LA CATALINA—CAIMITO—SAN JUAN DE SAGUA—SAN MARCOS—
LA MULATA.

General direction: N. Distance: 33.8 miles.

IN GENERAL.

1. From Herradura to San Diego de los Baños is a good, broad, dirt road, fairly level, and practicable for escort wagons, full loads, in dry season.

2. From San Diego de los Baños to La Mulata is a narrow trail, steep and rocky, leading through the mountains. Possible for pack trains in dry season, but hard on the animals. From San Juan de Sagua, good dirt trail over low pine ridges for 4.5 miles, when it leaves the hills. Steep in a few places, but good for pack trains. Fairly level trail for the rest of the distance. This trail is hard to follow. In a number of places it passes through closed yards.

IN DETAIL.

Herradura coincides with the 24.9 miles on the Conso-	Miles from
lación del Sur-Paso Real Road.	Herradura.
Cross trails.	0.2
El Canal. Road comes in from right. Two shacks	.4
on left. Open grassy country on both sides.	
Shack with little cultivation on the left. Road	.7
branches.	
Scattered trees.	1.0
Muddy in places.	1.4
Road to left.	2.4
Dry bed of small stream. Broad dirt road through	2.5
rolling, grassy country. No houses or cultivation. Main	
road is well traveled and easy to follow.	

Miles from
Herradura.

- 2.9 Broad road from left.
- 3.4 Road branches.
- 3.6 Cross small stream running over large flat rock on left.
- 3.8 Two roads meet at dry bed of small stream.
- 4.1 Cross grassy country. Another road running in same general direction.
- 4.2 Dry bed of small stream.
- 4.4 Caraballo. Two shacks on left. Take trail running to right.
- 4.6 Join another trail at top of gentle hill.
- 4.7 Trail branches; go to left.
- 4.8 Trail to left.
- 4.9 Small cross trail.
- 5.0 Small stream and bad mud hole. Road on left and shack on right. Road at this point very faint and looks like a small trail.
- 5.1 Road turns to left.
- 5.2 Barb-wire fences both sides.
- 5.3 Good-sized native frame house and barn on left. Two shacks on right. More cultivation here.
- 5.4 Trail on right.
- 5.6 Small stream, 4 feet wide, mud bottom, bad crossing. Steep, short banks on both sides.
- 5.8 Dry bed of small stream.
- 6.1 Ten-foot wooden bridge over dry bed of small stream.
- 6.4 Road grass grown. Barb-wire fence both sides.
- 6.5 Road to left, a short cut to Consolación del Sur.
- 6.6 Road turns at right angles to the right.
- 6.9 Old stone ruins 150 yards to the left.
- 7.1 Trail to left. Fairly level grassy country with very little cultivation. Scattered palms both sides of road.
- 7.4 Trail on right.
- 7.7 Río San Diego, 15 to 20 feet wide. Fair crossing. Can water two troops. Take road north. Cross the river.
- 8.0 Enter San Diego de los Baños. Leave San Diego de los Baños by trail running north by west over rocky ridge, Sierra de Linares, with dense brush on both sides. Graveyard with stone wall on right. Take small trail on right after leaving graveyard.
- 8.6 Small stream, nearly dry. Tobacco on both sides.
- 8.9 Trail passes through small gate near top of hill.
- 9.5 Top of first foothill. Considerable dense brush.

	Miles from Herradura.
Small stream, Arroyo Flamená, stony crossing. Not practicable for watering.	9.9
Open grassy knoll near top of hill.	10.0
Shack about 350 yards off to right.	10.3
Fairly smooth trail, running over open grassy knolls.	10.9
Timber (pine) getting larger, up to 1 foot in diameter.	
Scattered palms. Rocky cliff off some distance on the left. Few pines on right.	
Bad spot in trail. Steep and rocky.	11.2
Río Toro. Can water 6 horses at a time.	11.4
Open grassy knolls. Pines on left.	12.2
Top of ridge. Good, straight pine timber.	12.6
Small stream, Río Jabita. Trail bad and steep.	13.0
Two small streams.	13.5
Steep place in trail. Valley of Río San Diego on left; open view straight ahead. Pines, a few scattered palms, and other trees. Two shacks in valley, about 400 yards on right.	14.1
Río Catalina, 15 to 20 feet wide. Water a troop.	14.4
Steep, rocky descent to this river.	
La Catalina. Five shacks. Leave over trail running southwest.	14.6
Río Caimito. Water two or three horses. Two shacks on left a little farther on.	14.8
A shack on both sides. Little cultivation.	15.1
Small stream.	15.3
A shack on both sides.	15.4
Grass knoll. Shack below on right.	15.5
Trail branches twice. Take one to right both times.	15.7
Shack on left.	15.9
Small wooden gate. Trail branches just beyond.	16.0
Go to left.	
Small stream. Fine pine timber so far.	16.1
Pines more scattered.	17.0
Top of ridge known as Sierra de la Cumbre. View of sea (Gulf of Mexico) to front and left.	17.4
Trail rocky.	17.8
Extremely rocky to here. Pines not so large.	18.6
Trail branches. Take one to right around side of hill.	18.8
Small spring on left.	19.0
Junction of two small streams. Water 8 horses.	19.3
Hard rocky climb to this point. Cross two small rivulets.	20.0
Large valley on right. Take trail descending on right.	20.3

Miles from
Herradura.

- 20.4 Trail ascending on left.
- 20.5 Cross trail. Go to right.
- 20.6 Small stream bed, nearly dry, Arroyo del Gallo.
Scattered palms and underbrush.
- 20.9 Trail runs through yard of shack.
- 21.0 San Pedro del Caimito. Five shacks. Take trail to
left in front of frame house, pass down hill, through gate,
turn to right and then to left. Trail branches just
beyond; go to left.
- 21.3 Río Caimito. Water 12 horses. Enter a dense jungle
at this point. Palms, timber, and underbrush. Large
number of small rivulets, not practicable for watering.
- 21.8 Trail ascends dry torrent bed. Narrow, steep, and
very rocky.
- 22.7 Small stream. Number of mud holes in last half mile.
- 23.2 Stream, 20 feet wide, rocky bed. Only about 5 feet
wide at present. Water 12 horses. Take trail to right
skirting river and jungle. Another trail runs up slight
hill from river. Both trails lead to San Juan de Sagua.
The latter is a little longer, but not so steep and rough.
- 23.7 Small stream.
- 24.1 Out of jungle. Palms and other trees. Few pines.
- 24.5 Top of narrow ridge. Two large hills off to the right
oblique. Long ridge off to left. Range in rear.
- 24.7 Jungle.
- 25.2 Trail on left. Fenced clearing with four shacks and a
little cultivation.
- 25.3 Good 12-foot stream. Water 12 horses. More scat-
tered clearings and shacks.
- 25.7 Río San Juan de Sagua (Río San Marcos) Twenty or
thirty feet wide. San Juan de Sagua just across the
river. Leave from river, following right bank for short
distance. Then cross river again taking trail to left,
passing a shack and beehives on left of trail.
- 26.4 Small stream. Water 2 horses. Entering timber and
dense underbrush on both sides.
- 26.6 Trail branches. Take very faint one going to right
and ascending large hill.
- 26.6 The other trail to San Juan de Sagua comes in on the
left at this point.
- 27.0 Small stream, rocky bed. From here to 30.2 trail runs
over grassy ridges, well timbered with good sized pines.
Soil dark brownish red.
- 27.6 Good stream, rocky bed. Water 6 horses.

	Miles from Herradura.
Small stream. Water 2 horses.	27.7
Small stream, rocky bed. Water 8 horses.	28.3
Four small bridges of pine logs, about 10 feet long, bad condition.	28.6
Small stream at foot of steep hill.	28.7
Pines pretty thick. No underbrush.	29.3
Trail descends into valley on left. View of sea ahead.	30.0
Trail stony.	30.2
Trail on left.	30.9
Palms and other timber. Few pines.	31.0
Good stream, sandy bottom. Water 8 horses.	31.1
Top of grassy knolls. Gravelly trail entering thick jungle.	31.4
Río San Marcos on right.	31.6
Small stream. Bad crossing.	32.0
Two shacks on left and trail on right.	32.3
Open spot. Trail branches; take one straight ahead (right one).	32.4
Río San Marcos, 20 feet wide. Water a troop. Trail goes downstream for a few yards and then to the right.	32.5
Footbridge of two palms on left, over Río San Marcos.	32.9
San Marcos. Five shacks. Large clearing.	33.2
Cross Río San Marcos. Footbridge of single palm trunk. Go through small gate.	33.3
Trail branches. Go to right.	33.5
La Mulata. One house, the tienda La Mulata, on the right.	33.8

ROAD No. 26.

LAS MANGAS—PLAYAS DE GUANÍMAR.

General direction: SE. Distance: 14.7 miles.

IN GENERAL.

From Las Mangas road is passable for carts in the dry season as far as finca Menéndez, from there to finca Socorro the road is so rocky that loaded carts can not pass over it. From Socorro to Playas de Guanímar road is passable for infantry only.

The country from Socorro to Playas de Guanímar is very swampy; the road is ditched, but is very soft. Cuban ponies can pass over it but American horses would be mired. Río Guanímar parallels the road and is about an eighth of a mile from it. The source of the river is a spring just south of finca Socorro. It is about 9 feet wide

at the source by 1 foot deep, and widens out gradually until it is about 20 feet wide by 10 feet deep at the mouth, which is located at Playas de Guanímar. A towpath runs along the west bank, and oxen are used for the purpose of drawing loaded boats from the mouth to the source, where the cargoes are transported by bull carts. The road as far as Socorro is lined with stone and wire fences the entire distance.

IN DETAIL.

Miles from Las
Mangas.

- The road runs southeast from Las Mangas over level, uncultivated country.
- 2.0 Road joins it from the northeast from Portugués (located on the calzada 2.5 miles south of Artemisa). Road continues southeast.
- 2.5 Finca Fréire. At this point road turns east.
- 5.0 Road joins it from Portugués at finca Tierra. From this point road continues northeast. Road joins it from Artemisa at
- 5.7 Finca Maravilla.
- 6.2 Road joins it coming down from the little town of Cañas. Here road turns south for a short distance, then east.
- 7.0 Finca Menéndez. Half a mile beyond road turns south (a branch runs east 0.2 mile to finca Pluma).
- 8.0 Road turns southeast, continues in that direction to finca Júpiter.
- 9.5 Road comes in from the north from Cañas and Dagame. Road continues southeast, 0.7 mile, to finca La Paz, then east to finca Socorro.
- 11.0 Road runs in from Alquizar; continues east for 0.5 mile where it runs south.
- 14.7 Playas de Guanímar (the south coast road continues on east).

ROAD No. 27.

EMBARCADERO DE LAS PLAYUELAS (PLAYA BURRO)—ABRA—VIÑALES—CAYOS DE SAN FELIPE—PINAR DEL RÍO.

General direction: SE. Distance: 30 miles.

IN GENERAL.

1. Las Playuelas to Abra is a dirt road 7 feet wide, easy grades, condition good. Material for repair, wood, near by.

2. Abra to Viñales is a trail 3 feet wide over rocky hills, steep grades as far as Guasasa, but from there to Viñales is a wagon road, easy grades.

3. From Viñales to Pinar del Río good wagon road, fairly level, practicable for escort wagons in the dry season. Just before reaching San Felipe the grades are very steep; probably too steep for more than half cartloads. Broad, level, wagon road from 12.6 miles to Pinar del Río, practicable for full loads in the dry season.

The roads and trails over this route, except for the last 4 miles, and where they descend into the valleys, are gravelly and firm and would never be muddy. They are never rocky, but are steep in places. Good for pack trains.

IN DETAIL.

	Miles from Em- barcadero de las Playuelas.
Embarcadero de Las Playuelas (Playa Burro).	
Road is double. Trail to right to houses.	0.7
Trail to right to houses.	1.2
Trail to right to houses.	1.4
Trail to right to houses.	1.5
Trail to right to houses.	1.7
Crossroads Hatico San Bernabé de Morales. Road to left to San Cayetano; road to right to Malas Aguas.	2.5
Trail to right to houses.	3.5
Arroyo de la Cruz, 3 feet broad, 6 inches deep, velocity 2 miles; banks sloping, bottom sandy, and good ford.	4.7
Road to right to sitio Morales.	
Cross small stream flowing southwest.	5.5
Two small bridges 0.2 mile from Abra over Río Morales; wood; 20 feet long, 10 feet wide, 9 feet high; piers of heavy timber. Ford under first bridge.	5.7
Abra. Cross Río Morales. Tienda to right of road.	6.0
Ford difficult. Cross small ridge.	
Settlement of Ancon. Trail crosses Río Morales; river 7 feet wide, 1 foot deep, sandy bottom.	7.3
Top of steep hill.	9.3
Road to left to Esperanza.	10.0
Paso Guasasa (tienda). From Paso Guasasa to Viñales see Coloma-Pinar del Río-Viñales-Esperanza road, 31.5-mile point to 33.9-mile point.	10.3
Viñales. Start from the church in Viñales, going down the calle Real to the western end of the town.	12.7
Two roads lead out from calle Real; the left to Pinar del Río and the right to San Felipe. Take the latter, bearing about west.	13.3
Palm grove on the left. Road follows general direction of the Sierra del Infierno on the right, and about 500 yards from their base. Roadbed red clay.	13.6
Road turns. Bearing, southwest.	13.7

Miles from Em-
barcadero de las
Playuelas.

- Road forks; go to the left. Right branch goes to
- 13.8 Guajaní, known as camino del Infierno.
 - 13.9 At this point the road begins to bear away from the sierras.
 - 14.4 Rocky detached spur of the sierras on the right. A smaller one on the left. About 800 yards apart. House on left and water hole on right. Road at this point commanded by low ridge about 800 yards to the left and front. This valley is open and well cultivated and contains a number of scattered houses. Good grazing; parana grass. Wood and water scarce.
 - 14.5 Left road at this point, taking short cut by trail on right.
 - 14.7 Trail on right. Trail branches just beyond; go to left.
 - 14.8 End of the smaller, or Viñales, valley. Trail rises by steep grade to top of low ridge, passing house on left at the base.
 - 15.1 Trail bears southwest (245°) following in general the crest of the ridge. Hills rocky, shaly formation. Small underbrush, but not enough to afford concealment. Deep ravine on the left. Bearing from this point to Viñales, 50° .
 - 15.3 Trail descends. Two hundred yards it joins the main road (cart road).
 - 15.5 Road descends into small cultivated valley called Calvario. Bearing 204° . Twenty or thirty houses in the valley and some cultivation. Surrounding hills covered with scrub pine and scattered brush.
 - 15.8 Dry arroyo. House on the right about 100 yards beyond.
 - 15.9 Road not much more than a trail at this point. Branches; go to the left.
 - 16.0 Dry arroyo. House on the left just beyond. Trail branches into cross trail; go to the left; rising gently out of valley. Scattered brush, scrub pine, and some larger timber.
 - 16.1 Trail on the right. Soil gravelly and firm.
 - 16.2 Arroyo with a little water. Poor supply and not very good. Water about three horses at a time.
 - 16.4 Joins cart road, bearing about 150° . Country open and hilly. Scattered scrub pines. High knoll 50 yards to the right.
 - 16.5 Trail branches. Go to the right. Bearing 200° . Trail on the left to Guao. Arroyo containing a little water. Enough for one horse.

Cross two small rivulets. Water one horse. Road ascends short, steep hill. Small scrub pine with some larger trees up to 1 foot in diameter. Road bed gravelly and sandy.	Miles from Em- barcadero de las Playueas. 16.6
Crosses cart road and joins another just beyond.	16.8
Top of rise. Road getting broader. Good for wagons here.	16.9
Two shacks, with a little tobacco, off to the right. Road follows crest of ridge from here to the descent into the San Felipe valley. It is broad and has a fine gravelly bed. Good enough for wagons.	17.0
Brush larger and thicker. Two shacks off to the right. A little tobacco cultivation.	17.4
Cart road on the left. Trail on right rear, short distance beyond.	17.5
Barb-wire fence on right for 0.7 mile.	17.6
Small wooden cross, 2 feet high, on right. Road good.	17.7
Low hills, thinly covered with pine, to the left for the last mile.	
View of town and valley of San Felipe to right front. Long rocky cliff, about 200 feet high, runs along farther side of valley, which is cultivated and contains 2 tile-roof houses, and about 20 scattered shacks and a sprinkling of palms.	17.8
Steep descent and climb from hill at 17.8 to this one.	18.2
Highest point of ridge. Steep descent into the valley just beyond. From 17.8 road not practicable for wagons, but with considerable work it might be made passable for half loads, double teaming.	18.3
San Felipe valley.	18.7
Río Rojero, four or five feet wide. Water 6 horses; quality fair; runs into Río San Felipe.	19.0
San Felipe. Tienda called Cayos de San Felipe. Río San Felipe and good grass in the valley, but not much wood.	19.1
Leaving the tienda the road follows the Río Rojero around face of cliff, crossing the river at this point. Crossing fair. A little farther on the Río Rojero joins the Río Bocas.	19.4
Cross trail.	19.7
Detached rocky cliff off to the left. Patch of dense brush growing among large boulders just beyond.	19.8
Take trail on the left, crossing arroyo nearly dry.	20.0

Miles from Em-
barcadero de las
Playuelas.

- 20.1 Pass through yard of native house short distance beyond. Little tobacco cultivation.
- 20.2 Crosses arroyo, nearly dry.
- 20.3 Shack on left. Turn to the right.
- 20.5 Turn to the left. Shack on the right. Trail ascends short and very steep ridge. Narrow dirt trail from 20 miles to top of ridge, where it broadens a little and branches. Go to the right.
- 20.8 Three forks. Take the one on the right. Trail branches just beyond. Go to left.
- 20.9 Meets another trail near top of hill. Extensive view, from the crest, of the surrounding hills, and of the plains beyond through a gap in the foothills straight ahead. Hills fairly open. Scrub pine and some larger timber.
- 21.1 Trail branches twice. Go to the right the first time; to the left the second.
- 21.7 Small stream of good water in deep arroyo; rocky bed. Water two or three horses. Timber (pine) much larger.
- 22.3 Small trail on left. Level for a short distance here. A succession of hills from 20.8 to 25.5. Extensive view to the left from this point.
- 22.5 Two small trails on right, close together.
- 22.7 Trail on the left, running along the crest of a ridge.
- 23.0 Highest point of trail. Great expanse of country visible from this point, especially of the plains to the front. Small cultivated valley a little distance ahead and to the right. About 20 shacks and some scattered palms.
- 23.8 Small rivulet. Water two horses. Quality good. Long steep descent from crest to this point.
- 24.1 Trail follows along left bank of Río Guamá, crossing it at this point. River bed rocky, 6 or 8 feet wide. Plenty of good water.
- 24.3 Guamá. Trail branches just before reaching this place. Go to the left. Good camping site for a regiment. Plenty of wood and water, but not much grass at present. Loma las Flores to the east.
- 24.4 Small tienda on left. Cross Arroyo Guabinas just beyond; follow trail, keeping to the left, and pass two shacks on right at base of ridge.
- 24.9 Level stretch near crest of ridge. Last ascent very steep. Barb wire both sides of the road. Trail broadens into cart road. Too steep and narrow for wagons. Cart road from the plains over the foothills to Guamá, practicable for half-loaded bull carts.

Miles from Em-
barcadero de las
Playuelas.

Small shack on the left.	25.2
Two small shacks on right, near base of foothills.	25.5
Small plank bridge over Arroyo del Cangre, 20 feet long, 15 feet wide, and 2 feet high. Broad wagon road from here to Pinar del Río. Rather stony at this point.	25.6
Fork. Turn to left, joining crossroad. Very little cultivation for next 1.1 miles. Dense brush and scattered palms all along on the left. Country more open on the right, and grassy (sage). Scattered palms and brush.	25.8
Arroyo del Cangre. Barb wire on both sides and for 0.9 mile. Brush and palms pretty thick.	26.0
Country more open at this point. Several shacks on both sides, with a little cultivation.	26.3
Arroyo del Cangre.	26.8
Two vegas to the left. Covered fields. Road turns to the right.	26.9
Large tienda on the right—La Luisa. Small house on right just before reaching tienda. Country open on both sides from this point on. Rolling, grassy country, few scattered houses and palms and a little cultivation.	27.0
Palm grove. Most of the trees on the right. Long, practically level stretch for next 1.3 miles. Roadbed fine gravel and white clay. Sage grass both sides. Considerable country visible.	27.5
Road on left. Two shacks on right.	28.4
Small frame house, tile roof, on right. Young orange grove.	28.5
Grass-grown road on left. Shack on right.	28.6
Two-story frame house 200 yards off to right.	28.7
Arroyo Manacas. Course thickly lined with palms, especially to the left.	28.9
Barb wire on both sides from here on. Considerable cultivation.	29.0
Large stone ruin 200 yards off to the right. Road turns to left, joining road coming in from the rear. Another road joins on the right at this point.	29.1
Small tienda on the right.	29.
Río San Felipe, 15 to 20 feet wide, about three or four feet deep. Plenty of good water. Fair crossing. Firm, sandy bottom. Pumping station 200 yards upstream, on right bank.	29.6
Road on right to pumping station.	29.7
Cuartel, Pinar del Río.	30.0

ROAD No. 28.

PILOTOS—PIÑALILLO—VIÑALES—LA MINA (MINA ROSARIO)—LA PALMA—RÍO BLANCO.

General direction: N. Distance: 33.7 miles.

NOTE.—During 1908 a metaled road was constructed connecting La Palma and Río Blanco.

IN GENERAL.

1. Pilotos to Piñalillo.—Wagon road; earth surfacing; average width about 5 feet, and practically level.

2. Piñalillo to Viñales.—The trail is very rough and in some places barely passable for horses. After it reaches the Viñales valley it develops into a good wagon road. The hills are barren. The land near the Río Hondo in the Pilotos valley is cultivated. The Viñales valley is cultivated in part. About a mile stretch from the high hills is a sandy waste. No good camping sites on this route.

3. Viñales to Río Blanco.—From Viñales to La Mina is a wagon road in good condition, surfacing firm clay and sand, grades easy, width 16 feet.

From La Mina to La Jagua is a mountain trail almost all of the distance, suitable only for pack transportation. Very hilly and wooded. Oak and pine plentiful along route.

From La Jagua to La Palma is a good wagon road during the dry season, but would be impassable for anything but bull carts during the wet season. Surfacing mostly a sandy clay, clay predominating. Width of road 10 feet, and in places runs through cuts not more than 8 feet wide and 3 to 4 feet deep. Grades easy.

From La Palma to Río Blanco and the coast is a wagon road in fair condition and always passable for wagons during dry season. Width 16 feet, surfacing mostly clay. Road runs through hills as far as tienda and schoolhouse of Río Blanco. Through these hills road passes over a number of steep grades.

IN DETAIL.

Miles from
Pilotos.

Leaving Pilotos the road runs a little east of north for 0.5 mile, when it turns nearly due east 0.2 mile to Piñalillo. The land on both sides of the road is cultivated.

0.9 The Río Hondo crosses the road about 100 yards west of Piñalillo. It is about 40 feet wide, 4 feet deep; has a 6-mile current flowing east and southeast; evidence of about 4 feet fluctuation and 10 yards spread. Crossed by means of a ford; approaches good but rocky. Water supply abundant and quality excellent.

<p> Piñalillo.—It is at the foot of the high hills, Loma de La Capitana, and about a mile from Pilotos. A trail for Viñales leaves Piñalillo in a northwestern direction. The Pilotos-Piñalillo road continues east for about 0.5 mile beyond Piñalillo, where it divides into two trails which lead to different ridges in a northeastern direction. Good camp site for a squadron between Pilotos and Piñalillo. Plenty of excellent water with fuel in the near-by hills. Trail leaves Piñalillo and runs in a northwestern direction, crossing a branch of the Río Hondo just outside of Piñalillo. This stream is about 8 feet wide, 2 feet deep; has a 6-mile current flowing southwest; fordable; approaches to the ford easy; bottom rocky; fluctuation marks 2 feet; water supply abundant and quality good. </p>	<p> Miles from Pilotos. 1.0 </p>
<p> The trail ascends a steep slope to the summit of the high hills known as La Capitana and Pinar Llano (about 1.5 miles). It then leads in a northwestern direction across one peak after another until it reaches the Viñales valley. </p>	<p> 1.5 </p>
<p> Here it crosses a creek 3 feet wide, 2 feet deep; 4-mile current flowing east; fordable; approaches abrupt; bottom sandy; fluctuation marks 3 feet; water supply abundant, quality good. </p>	<p> 5.5 </p>
<p> About a mile farther a trail branches to the southwest. </p>	<p> 6.5 </p>
<p> About 100 yards farther a trail crosses the road from east to west. </p>	<p> 6.6 </p>
<p> A little farther the trail develops into a road practicable for wagons. </p>	<p> 6.7 </p>
<p> About 1.5 miles farther it crosses the Viñales-San Andrés road. </p>	<p> 8.2 </p>
<p> About 1.5 miles from this crossing it joins the Viñales-Ceja Ana de Luna-San Andrés road (main road through valley) about 2 miles out of Viñales. </p>	<p> 9.7 </p>
<p> Viñales. Leaves northeastern end of the main street of Viñales and turns north at end of street; thence almost due north. Roadbed sandy; cultivation. </p>	<p> 10.7 </p>
<p> Divides and turns northeast. </p>	<p> 11.5 </p>
<p> Turns north. </p>	<p> 11.7 </p>
<p> Turns northeast, passing southern tienda of Laguna de Piedra. Road to left to tienda Guasasa. </p>	<p> 13.5 </p>
<p> Passes schoolhouse on left. Cultivation. </p>	<p> 13.7 </p>
<p> Passes northeastern tienda of Laguna de Piedra. Roadbed clay. </p>	<p> 14.0 </p>
<p> Crosses bridge over stream at Mogote Soledad. Stream about 4 inches deep and 4 feet wide; at bridge wider, </p>	<p> 14.2 </p>

Miles from
Pílosos.

- and from 6 to 8 inches deep; banks low. Good camping place; grass in abundance. Cultivation and pasture. Tienda of Soledad on left of road. Road to right to
- 14.5** La Jagua Vieja and several fincas. Hills commence. Small tienda on right. Road turns northwest.
- 15.0** Road turns northeast. Hills; grades easy; road good.
- 16.2** Small patches of cultivation. Tienda Encinal Alto.
- 16.7** La Mina. Three or four houses. Copper mine. Road
- 17.2** to west to San Vicente. From this point cart road runs northeast through hills to La Jagua. Hills covered with growth of pine and oak. No very steep or long grades. Bed of road firm, sandy clay; not liable to be seriously affected by rain.
- 17.7** Trail to south to La Jagua Vieja.
- 18.0** Turns northwest. Hills and brush.
- 18.7** Turns northeast. Hills; pine and oak.
- 21.0** Western tienda and schoolhouse of La Jagua. Road to north to Esperanza and Berracos; to south to La Jagua Vieja (schoolhouse and fincas); to east to La Palma. La Jagua is a cultivated district about 0.5 to 1 mile wide, lying between the sierras.
- 21.2** Crosses small stream, 2 to 3 inches deep; bottom sandy; width 2 to 3 feet; banks low.
- 22.0** Trail to north to Berracos. Crosses dry bed of stream.
- 22.7** Passes eastern tienda of La Jagua on right.
- 23.2** Eastern schoolhouse of La Jagua; several farmhouses scattered about district. Road bed soft dirt.
- 23.5** Crosses Río Blanco; ford, bottom rocky; width 20 feet, depth 12 inches; banks 4 feet high; current good; excellent camping place. From this point road is low and would be difficult during heavy rains. Road to northeast along telegraph line to La Palma.
- 24.7** Passes to right (south) of a mogote.
- 25.0** Vegas Nuevas. Tienda and dwelling house on north side of road, shack on south. Road on leaving tienda crosses bridge over dry bed of stream; bridge 20 by 16 feet; of wood; poor, but in fair condition. Banks of stream about 6 feet high. Cultivation. Good pasture in this vicinity.
- 26.5** Passes farmhouse and avenue of palms. Cultivation.
- 27.7** Road divides and turns north to La Palma, passing around a mogote, and entering La Palma from the west. Road to east around south side of mogote joins La Palma-San Andrés road.

La Palma. Straight ahead for two blocks and turn to left; cross Río Blanco and take road passing cemetery. Just north of hill road divides; take road to right. Road-bed of firm sand and clay; good drainage. Cultivation.	Miles from Pilotos.	
	28.2	
Crosses stream; would never present obstacle. Country hilly and covered with thin growth of pine and oak to tienda and schoolhouse of Río Blanco. The road divides at several points, but all side roads rejoin; one about as good as another.	28.5	
Tienda and schoolhouse of Río Blanco. Road to east to Río Puerco and Bahía Honda. To north to Almacén of Río Blanco; to west to Esperanza. Road passes through rolling country, most of it under cultivation. Wagon road.	30.7	
Calzada commences.	33.0	
Almacén of Río Blanco (Port).	33.7	
Cart road from Río Blanco to tienda of Río Puerco; general direction northeast; distance 3 miles.	Miles from Río Blanco.	
Due east from tienda of Río Blanco.		
Turns northeast.	0.3	
Crosses small stream; bridge of wood, very small. Passes through low, marshy land, and would be impassable during heavy rains.	0.5	
Crosses Arroyo Rico and passes through gate; enters finca, land under cultivation or being used as pasture; scattering houses. Banks of Arroyo Rico 6 feet high; depth, 10 inches; width, 10 feet at crossing; current good. Would be impassable after heavy rain.	1.0	
Small tienda on left (shack). Road turns north.	2.0	
Tienda of Río Puerco. Road turns east to Bahía Honda.	3.0	

ROAD No. 29.

MÁNTUA—NARANJAL—LA CANA—CAFETAL—NARANJO—LA JAGUA—
MANAJA—FRANCISCO—GRAMALES—BAJA.

General direction: NE. to La Jagua, E. to Francisco, and W. to Baja. Distance: 45 miles.

IN GENERAL.

1. Mántua to La Jagua.—A fair cart road most of the way. In places a mere trail. It runs along and near the Río Mántua and for the greater part through heavy underbrush which lines the river.

There are numerous cultivated patches and houses at different intervals along the road. The road is practicable only in the dry season; in the wet season the hill roads are used. The road is fairly level throughout. General direction is northeast. Good camping sites for a squadron at Mántua, Naranjal, and Cafetal. For a detachment at La Jagua.

2. La Jagua to Francisco.—Primarily a cart road and is not practicable for wagons. The road has a number of very steep grades. The wagon road to the western coast runs via Los Acostas, southwest from Francisco.

3. Francisco to Gramales.—A cart road, but could be made into a wagon road. It is practically level and has an earth surface.

4. Gramales to Baja.—For the first 10 miles this road passes over the mountains and is steep in many places; wheeled transportation can not be advantageously used. For the remaining 4.5 miles the road is good and is practicable for army wagons in all seasons.

IN DETAIL.

Miles from
Mántua.

- Starting as a wagon road, road leaves Mántua at the monument in the Plaza and runs southeast along the most northern street.
- 0.4 Turns northeast. Other road continues southeast, running through Montezuelo to Guane.
 - 0.5 Runs through cultivated land and crosses Río Mántua.
 - 0.7 Turns north through cultivated land and scattered houses and recrosses Río Mántua.
 - 1.9 Cart road branches west (connecting with the road Santa Isabel to Mántua).
 - 2.0 Trail branches northeast (short cut).
 - 2.7 Turns east and northeast and becomes a cart road, the main wagon road continuing toward the western hills to Santa Ana, Cabezas de Horacio, and other points west and north.
 - 3.4 Trail branches north (connecting trail with the Cafetal-Santa Ana road).
 - 3.8 Crosses Río Mántua. Road crosses river three times. River makes a number of wide swings just before reaching Mántua. Sixteen feet wide, 2 feet deep, 4-mile current; fluctuation marks, 6 feet; fordable; approaches easy and bottom gravel. Road crosses a 150-foot hill, slopes gradual.
 - 3.9 Joined by a trail from the southwest (short cut).
 - 5.1 Cart road branches southeast to Montezuelo. Road runs through pasture land and turns north.

Naranjal.—A cultivated district consisting of many scattered houses. The valley is fertile, watered by the Río Mántua, which crosses it from northeast to southwest. Trail runs southeast over hills for 3 miles and joins the Montezuelo-Los Acostas cart road. Road runs north through Naranjal. Miles from
Mántua.
6.1

Crosses Río Mántua; flows west, 20 feet wide, 3 feet deep, 4-mile current, fluctuation 8 feet, spread 30 feet; fordable; approaches easy; bottom gravel. Road turns northeast and continues along river. 6.3

Crosses a 100-foot grassy hill. 6.8

Crosses a small creek flowing southeast. 7.2

Runs through heavily wooded section. 7.6

Crosses a small creek flowing southeast. 8.0

La Cana.—A small, cultivated valley with six houses. Lies close to the western hills and is surrounded by heavy underbrush. Trail branches southeast across river and runs to Guane. A cart road branches northwest through hills and joins main road in hills running to Mántua. Road becomes a trail, running nearly due east along the river and through heavy underbrush. 8.0

Runs through long stretch of underbrush crossing three small creeks flowing southeast. 9.3

Crosses 50-foot grassy hill. 9.4

Caracoles.—A cultivated district consisting of a number of scattered farms. Crosses a small stream flowing southeast. Cultivated land on both sides of the stream. 9.8

Cafetal.—Cultivated district containing many scattered farms. The name is more particularly applied to a group of two large storehouses and four other houses at the junction of several roads. Telephone connection with La Jagua, and through Pinar Oscuro to Dimas, on the coast (private line). Line runs along the road in the hills. A wagon road branches northwest to hills where it divides, one branch running to Cabezas de Horacio and other points north and northwest, the other running to Santa Ana and points west. Trail branches southeast over the hills to Guane via Los Ocujes. Road leaves Cafetal and runs in a northeast direction. Light underbrush broken by an occasional cultivated patch and a few houses. 10.0

Crosses a small creek flowing southeast. 10.7

Crosses a small creek flowing southeast. 10.9

Crosses a 50-foot hill. 11.0

Crosses a small creek flowing southeast. 11.3

Miles from
Mántua.

- 11.4 Crosses a 100-foot hill.
- 11.5 Crosses a small creek flowing southeast.
- 11.6 Runs 0.4 mile through heavy growth of trees.
- 11.8 Crosses a small creek flowing southeast. Patch of cultivated land to right of creek.
- 12.0 Cultivated patch on left; 4 houses.
- 12.2 Crosses a small creek flowing southeast.
- 12.3 Crosses Río Mántua.
- 12.5 Crosses Río Mántua. The river at this point comes out of the hills on the east and makes a bend to the west. Cultivated land with two houses in the bend. The road crosses the bend, fording the river twice. Río Mántua: Width, 16 feet; depth, 2 feet; current, 4 miles, fluctuation marks 9 feet; fordable; approaches easy and bottom gravel.
- 12.6 Road crosses a small creek flowing south. Creek: eight feet wide, 2 feet deep; soft bottom. Drains the country north to Naranjo and La Jagua.
- 12.7 Wagon road branches north across hills to Cabezas de Horacio and other points north. Cultivated land. Pastures and scattered houses on left.
- 13.2 Crosses a small creek flowing southeast.
- 13.4 Crosses a small creek flowing southeast. Small wooden bridge, 6 feet long by 12 feet wide over an arroyo 8 feet deep.
- 13.6 Crosses a small creek flowing southeast.
- 14.1 Crosses a long stretch of grazing land. Crosses a small creek flowing southeast. Crosses a 50-foot hill.
- 14.6 Crosses a small creek flowing southeast.
- 15.0 Crosses a creek flowing south and southeast, 6 feet wide, 2 feet deep, and having soft bottom.
- 15.1 Naranjo.—A small cultivated district with 3 houses. Is part of La Jagua. Cart road branches southeast over hills to Asiento Viejo. Trail branches west to road on western hills. Road turns nearly due north. Telephone line joins road connecting Asiento Viejo and La Jagua.
- 15.3 Crosses a small creek flowing northwest.
- 15.6 Crosses creek flowing west, 4 feet wide, 1.5 feet deep; bottom soft.
- 15.9 Crosses 100-foot hill (pasture land).
- 16.2 La Jagua.—A large cultivated district. Many scattered houses. Name applies particularly to a large white house, a large tobacco barn, and several small sheds, all surrounded by a stockade (3 feet high) built of

the stumps of palm trees. Telephone connection with Asiento Viejo and Manaja and through Pinar Oscuro with Dimas. Wagon road runs north and northeast to Manaja. Wagon road runs northwest to Pinar Oscuro, and a branch runs south and southwest over western hills to Cafetal, Santa Ana, and other points. Take wagon road running north for 600 yards, where it joins the Dimas-Asiento Viejo road. Turn east on this road until the Manaja road is reached, running north. Turns north, ascending 150 feet. Wagon road branches west to Pinar Oscuro. Trail branches east to Pesquero-Manaja trail. Road turns northeast. Road descends 100 feet and turns east.

Miles from
Mántua.

Manaja. (Casilda de la Manaja).—Leave Manaja, going east. Cross a small, shallow, fordable creek, flowing northwest to coast.

Road reaches a ridge, the ascent being 1.7 miles long. The ridge then changes direction toward the south and the road continues on this ridge for 2.5 miles.

Road is crossed by two small, shallow, fordable creeks 0.2 mile apart. These are branches of a larger stream flowing northwest 0.5 mile to left of road.

Road joined by trail from Gramales from northeast. From this point the road winds around a high peak, before reaching which there is an ascent from an uncultivated valley with numerous high peaks.

Road descends from a range of high hills through a cultivated valley and enters Limpio Francisco by road running southeast. (From Francisco to Gramales, *see* Guane-Limpio Francisco-Peña Blanca-Malas Aguas road, from 22.3-mile point to 27.3-mile point.)

Gramales.

Road to Francisco turns off to southwest.

Another road to Baja to southwest.

Mountains are passed. Rest of distance is through plains covered with grass and scattering palms.

Arroyo Hicacos; a small stream with steep banks; good ford.

Río de Baja; steep banks; good ford, 12 feet wide, 0.7 foot deep. Vegas for one mile on both sides of this river. Good camping place for one regiment; fuel and grazing plentiful.

Baja. Two houses and tienda.

ROAD No. 30.**PINAR DEL RÍO—SAN LUIS—TIRADO—PALIZADAS.**

General direction: From Pinar del Río to Tirado, S.; from Tirado to Palizadas, E.
Distance: 22.5 miles.

IN GENERAL.

1. Pinar del Río to San Luis.—A fairly good dirt road in the dry season. Practicable in dry season for all classes of transportation. In wet season, for light-loaded wagons.

2. San Luis to Palizadas.—A dirt road through level country. Road very crooked. Road divides at Tirado, both roads from San Luis.

IN DETAIL.

- | | |
|------------------------------|--|
| Miles from Pinar
del Río. | Leaves town from the south, running in a generally southerly direction. |
| 0.2 | Two tiendas and unimportant branch road to west. |
| 0.7 | Tienda east of road. |
| 1.0 | Top of flat ridge. Small grade for short distance, after which level. |
| 1.2 | Small stream, sandy bottom, Arroyo Galiano. |
| 1.5 | Branch road to San Juan y Martínez. |
| 2.0 | Crosses railroad 100 yards west of kilometer 180. Passes through flat country, small lagoons occurring at intervals on either side of road. |
| 2.5 | San Mateo, a large lagoon 200 yards east of road. |
| 3.0 | Tienda east of road. |
| 3.5 | Crosses small stream. |
| 3.7 | Tienda west of road. |
| 5.7 | Road follows top of ridge, overlooking Río Feo valley. |
| 8.7 | Tienda east of road. |
| 10.0 | Road turns abruptly west, meeting, but not crossing, a road running east and west; runs west 2 miles into San Luis. Tienda at junction of roads. Brickyard in rear of tienda. |
| 10.5 | Crosses small arroyo. |
| 10.7 | Crosses stream, sandy bottom, over small bridge. |
| 11.0 | Crosses small stream, sandy bottom, crossing good. |
| 11.2 | Crosses arroyo over small bridge, Río de Tirado. |
| 12.0 | Reaches San Luis, entering town in main street. The last 0.7 of a mile of this road is a well-repaired macadam road. Country throughout entire length of road generally low, flat, and, except where otherwise mentioned, in places swampy. Sparsely settled on west side; |

east side practically without settlements, being sandy and uncultivated; covered with growth of scrub pines and palms. Swampy, dotted with lagoons of varying sizes. Miles from Pinar del Río.

Leave San Luis, going south.

Tienda on left. At this point the road reaches the river and joins the San Luis-Salinas road south of the crossing of the Río Corojo. 13.0

The west branch road, after crossing the river, follows the river bank closely for about 2 miles. 13.2

Road divides, west branch crossing the river and the east branch running north to the Pinar del Río-San Luis road. 17.0

Río Feo. Settlement of Tirado ends here. 18.0

Cross Arroyo Hicaco. 21.0

Enter Llanada Palizadas. 22.5

ROAD No. 31.

ARTEMISA—CAÑAS—PLAYAS DE GUANIMAR.

General direction: SE. Distance: 10 miles.

NOTE.—During 1908 metaled roads were constructed connecting Artemisa with Capellanias and Alquizar in Habana Province.

IN GENERAL.

1. Artemisa to Cañas.—A very rough rock road lined with stone fences, passable for bull carts only. Loaded wagons could not pass over it owing to rocks and the deep channels worn into the bed rock by bull carts.

From Cañas a road runs due east 1.2 miles north of the railroad to finca Teresa and ends. There are two roads from Cañas to Alquizar, one north of the railroad and one south. The road north runs from Cañas northeast 2.5 miles to finca Nueva. From there road continues northeast 1 mile, where dirt cart road branches north about 2 miles to Ceiba del Agua. From this point road continues southeast about 3 miles to Alquizar. Just before reaching finca Nueva a road branches south to Dagame 1 mile distant, and about 0.2 mile north of Dagame there is a road branching east from this road that continues east for about 2 miles, where it connects with the road running to Alquizar from finca Nueva, about 1.5 miles from Alquizar. The road south from Cañas to Alquizar runs directly south for 1 mile, then southeast for 1.2 miles to finca Isabela, where

a road runs north connecting with the north road from Cañas. Main road continues southeast for 0.2 mile, where road branches off to the south coast road. Main road to Alquizar runs east from there for 1 mile, where road runs north to Dagame (1 mile distant), and from there 0.7 mile east to where a road branches, one continues east. The main road runs north for 0.5 mile, then northeast for 0.7 mile, crosses the railroad track at the fifty-seventh kilometer post, and 1 mile beyond joins the north road from finca Nueva 1.5 miles from Alquizar. These roads are all passable for bull carts, but impracticable for loaded wagons on account of roughness. During rainy season they would be very slippery.

2. Cañas to Guanímas.—It is an old road, very rocky, lined by stone fences, practicable for bull carts during the dry season only. The space fenced off for a road is wide enough for three bull carts to pass, but there is only one well-used track, which is worn considerably below the surface of the remainder of the ground, with rock projecting as high as 2 feet above the road in places.

IN DETAIL.

Miles from
Artemisa.

Road runs southeast from Artemisa in continuation of calle República.

- 0.5 Crosses the Western Railway. Continues southeast.
- 0.7 Road turns east. At this point a dirt road branches southwest, parallels the calzada 0.7 mile south of it and continues about 2 miles to finca San Francisco and ends. This road is connected with the calzada southwest of Artemisa in two places by dirt roads about 0.7 mile apart.
- 1.5 A road branches to the southeast. Continues about 4 miles to finca Maravilla on the south coast road, passing through fincas Gabriela, Santa Ana, Montoto, Tuscano, San León, and Neptuno. Returning to the Artemisa-Cañas road at the point where the above-mentioned road branches to the southwest, another road branches southeast for 1.5 miles, then east 0.5 mile to finca Waterloo, south from there 2 miles to finca Calipso. At this point road branches, one branch running southwest 1 mile and connecting with the first branch road from Artemisa at a point 0.7 mile northwest of finca Maravilla; the other branch runs east 0.25 mile and connects with road coming down from the Artemisa-Cañas road. Road continues east
- 1.7 Finca Merced and Trisan. A dirt cart road branches to the south 1.2 miles to finca Waterloo. Road continues east

Another road branches south 2.5 miles to finca Simpatía, from there south 0.5 mile to finca Frontil and south from there 1.5 miles where it connects with the south coast road about 1 mile east of finca Maravilla. Half a mile north on the road just described another road comes in from the northeast from finca Frías, connecting there with the Cañas-south coast road.

Cañas. The road turns south. 3.0

Fincas Rolando and La Rosa. Road continues south. 3.7

Road turns southeast. 4.2

Finca Isabela, where a cart road comes down from the north from the Cañas-Alquízar road 0.7 mile east of Cañas. Road continues southeast. 5.7

A road branches to the northeast (this branch road continues on to Alquízar with branches running off in several places, connecting with the Alquízar-Cañas road on the north and the south coast road). Road turns more to the south. 6.1

A road branches east which, about 0.7 mile beyond, turns northeast to Alquízar. This road is also connected in several places with the roads north and south. 6.6

Finca Frías, where a branch road runs southwest 3 miles to finca Neptuno. Road continues south. 6.7

Finca Soledad. Road runs south past finca Mariana. 8.5
Connects with the south coast road 2.2 miles west of where the road runs south to Playas de Guanímar. 10.0

ROAD No. 32.

LAS CAOBILLAS—PALIZADAS—PINAR DEL RÍO—PASO VIEJO—JAGUA—CONSOLACIÓN DEL SUR—LAJAS—SAN DIEGO DE LOS BAÑOS.

General direction: N. to Pinar del Río, and NE. from there to San Diego de los Baños.
Distance: 46.7 miles.

IN GENERAL.

1. From Las Caobillas to Pinar del Río is a dirt road to within 3 miles of Pinar del Río, when it becomes a calzada. This dirt road, near the coast, is low and sandy, and good in the dry season.

2. Pinar del Río to Consolación del Sur.—Good, broad dirt road, fairly level, and practicable for escort wagons, full loads, in the dry season. The level stretches (to Consolación), which are pretty evenly distributed, are covered with from 2 to 4 inches of dry, light sand, making the travel heavy for about half the distance. The wooden bridges, with the exception of the first one, are impracticable, and

most of the river crossings require one or two extra teams on account of the steep approaches on both sides.

3. Consolación del Sur to San Diego de los Baños.—From Consolación del Sur to Lajas the road lies entirely south of the mountains, and in the dry season could be used for ox carts, though on account of the unimproved condition of the road it would be practically impossible to use wagons on it at any time. After leaving Lajas, the trail becomes very narrow and steep in places, rendering its use by anything but pack animals an impossibility. All streams are bridged, and this trail could be traversed at any season by pack trains.

IN DETAIL.

Miles from Las
Caobillas.

- Las Caobillas (Caobillas de la Llanada).—From this place a coast road runs northeast to Coloma and a trail runs south through swamp to Ensenada de Guamá. Take a road north.
- 2.0 Palazadas.
 - 5.0 Tienda on the right. The settlement surrounding this point is called La Llanada.
 - 10.0 Road runs northwest and then north.
 - 12.5 Enters Pinar del Río-Coloma road near kilometer 6. Macadam road to Pinar del Río.
 - 16.2 Pinar del Río. Leave Pinar del Río by road running northeast from calle Velez Caviedes. Ice plant on right of road and on right bank of Río San Felipe. River about 25 feet wide, crossed by wooden bridge, 5 by 75 yards, in good condition. Tienda El Puente on right just across the bridge. Tienda La Defensa on the right. Road to Ovas.
 - 16.8 Road on left to Viñales and San José. Small tienda on left and right.
 - 12.1 Rivulet, 3 feet wide.
 - 12.3 Large tienda, La Aguadita, on the right.
 - 12.9 House on the right at top of gentle hill.
 - 19.6 Paso Viejo. One large stone house on the right of the road.
 - 19.7 Río Paso Viejo (Río San Felipe); 20 feet wide and about 3 feet deep. Wooden bridge 5 by 75 yards. In too bad condition to be used. The crossing here is very bad, requiring from 6 to 8 mules to handle a load. Banks on both sides steep and muddy. Practicable to water half a troop at a time.
 - 19.9 Tienda on the left at top of hill.
 - 21.4 Small tienda on the left.

Tienda La Punta de San Juan on the right. Stone dwelling on the left. This place is called Las Ovas.	Miles from Las Caobillas.
Trail on right to town of Las Ovas.	21.7
Private road on left.	22.5
Trail on right at top of hill.	23.4
Crossroad. Right, to Ovas; left, to Pilotos.	24.1
Small tienda on right. Ajiconal.	24.7
Río Ajiconal, 20 feet wide. Water a troop at a time.	24.8
Wooden bridge, 5 by 20 yards, in too bad condition to be used. Crossing practicable for escort wagon, 6 mules.	
La Jagua. Tienda of same name on right. No other buildings. Broad crossroad. Right one to Puerta de Golpe, 3 miles. Left one to Pilotos, 6 miles.	25.2
Small stream, not practicable for watering.	26.1
Small rivulet. Bad places in road from here to 27.	26.5
Small tienda on right.	26.8
Large stone house on right.	27.0
Río Hondo, 20 feet wide, 1 foot deep. Possible to water a squadron. Steep banks on both sides. Wagons would require at least 6 mules. Small wooded ferry, practicable for 2 horses at a time. Used only in rainy season.	27.2
La Espolón, on left. Road on right to Puerta de Golpe, 3 miles.	27.5
Road on left to Pilotos.	28.0
Small stone bridge over rivulet. Not practicable for watering.	28.4
Road on left.	29.5
Clump of small trees on left.	29.8
Road on right to Puerta de Golpe. Clump of small trees on left.	30.2
Road on right to Puerta de Golpe.	30.5
Small stream, not practicable for watering, on outskirts of Consolación del Sur. Leave Consolación del Sur to the northwest via the extension of calle Fuente.	30.7
Road forks; take right fork to Lajas; left fork goes to Caimito (central). Road continues over rolling country, dotted here and there by royal palms.	31.7
Crosses small arroyo; no water found here during dry season, but in rainy season water reaches depth of 4 feet; no bridge. Country continues practically level without variation.	33.2
Crosses several small streams, headwaters of the Leña River (Río Santa Clara). The beds of these streams	35.7

Miles from Las
Caobillas.

- are some 12 feet below the natural level of the trail, and the approaches to fords steep, narrow, and deep.
- 37.7** Enters Lajas, and turning nearly due north, follows up the Herradura River to the foothills. From here on to San Diego de los Baños the trail is entirely unimproved except for the small wooden bridges across the several mountain streams. The trail is steep and rocky, with few level stretches. It passes for the most part through dense woods and undergrowth, and little can be seen at a distance of 20 yards from the trail.
- 46.7** San Diego de los Baños.

ROAD No. 33.

DIMAS—MANAJA—LOS ACOSTAS—SAN CARLOS—SUMIDERO—CABEZAS DE MONTIEL—GUAYABO—PINAR DEL RÍO—PILOTOS—SAN ANDRÉS—LA PALMA (CONSOLACIÓN DEL NORTE).

General direction: E. as far as Pinar del Río, and from that point, N. Distance: 87.2 miles.

IN GENERAL.

1. Dimas to Pinar del Río.—Leaving Dimas, this road is good for army wagons as far as San Bartolomé valley (8.5 miles). The greater portion of the route from San Bartolomé valley to Manaja and beyond to within 2 miles of Los Acostas is impracticable for anything except pack and cart transportation.

From 2.5 miles northwest of Los Acostas via San Carlos, Luis Lazo, Sumidero, and Cabezas to the Cuyaguatete River, or Río del Mulo, there is a good wagon road practically level all the way except for the last mile after leaving Cabezas.

From this point to 1.5 miles northwest of Guayabo the trail is difficult, passing up and down steep high hills, impracticable for any except pack transportation.

From Guayabo to Pinar del Río is a good dirt road practicable in dry weather for army wagons and automobiles. There is abundant evidence of bad mud in several places during the wet season.

A telegraph line follows the general direction of this road from Dimas to the finca of Manaja. Through the greater part of the route it is not in sight of the road. A telephone line follows the route from Sumidero to Pinar del Río, but is now unserviceable.

2. Pinar del Río to Pilotos is a fairly good dirt road through a level country. Runs in a generally northeasterly direction. In dry season passable for all classes of transportation, but in rainy

season impassable for wagon transportation, due to ford crossings over Paso Viejo and Ajiconal rivers.

3. Pilotos to San Andrés is a road over which a cart can pass, but a wagon would find difficulties.

4. San Andrés to La Palma (Consolación del Norte) is a trail which enters hills and sierras and is suitable only for pack transportation. Surface rocky and in places paved with cobble stone. Grades steep and difficult.

IN DETAIL.

Leaving east end of street, road turns to left; house to right; 400 yards to a small muddy bottom stream, across marsh; dense jungle and swamp to left. Leaving stream, road winds up a gentle grade to top of high ridge.

Small spring; drain crosses road. House 100 yards to left. **0.5**

Signs of mud. **1.0**

Signs of mud. Up to this point road passes through rolling country, dense underbrush for the most part on both sides. Here it becomes open, houses and cultivation right and left. Bearing up to this point about east. From top of ridge, bearing 115° . **1.6**

Top of high ridge. Road runs down hill at this point, grade about $2\frac{1}{2}^{\circ}$ to 3° . Crosses a shallow hollow, over another low ridge, following generally a ridge line, thence down a slope and up to Pueblo Nuevo. **2.0**

Pueblo Nuevo. One large almacén, two tiendas. Water supply from an arroyo near by. Leaving Pueblo Nuevo, road runs down grade 300 yards; crosses head of a marsh. Signs of mud, but could be easily avoided. High ground to right. Telephone line leaves road here. Road follows a gravelly ridge. Tobacco cultivation to the left, 500 yards away, with tobacco barns. Ground falling toward west to the sea, 1 league distant. **3.0**

Arroyo of Cayabo. Small stream, fine water. The dividing line between Cruz de Pino and Pueblo Nuevo. Steep banks, but approaches good. At present corduroyed with palms. Country open; abundant royal palms. Elevation gradually increasing as mountains are approached. From arroyo above mentioned road rises by a steep grade; follows ridge, direction about 55° . **4.2**

Vega Cruz de Pino. Tobacco fields to right and 1,000 yards to left, with numerous tobacco barns. Small tienda to left, at fork of road. Road to left. Route follows road to right. **5.3**

Miles from
Dimas.

Miles from
Dimas.

- Passes down steep slope to an arroyo, up a grade and
- 5.5 follows another ridge for the next mile. General direction about 60° . Small pines on high ground; soil gravelly. Road good for wagons at all seasons.
- 6.0 Road crosses head of a ravine, high hill 75 yards to right; small knoll 1,000 yards left front; 200 yards farther crosses high commanding ridge, with a road leading off to left front. Follows ridge, practically level, bearing northeast. Country open, grassy; gravelly road.
- 6.7 A road leading to left front. The road turns due east in a straight line to mountain, a high peak rising above everything else. This mountain is about 3 leagues due east of this point. Bártolo in plain view, 1.2 miles a little south of east.
- 7.5 Houses to right; 300 yards farther road crosses a marsh 75 yards wide and a small arroyo, with a little water, muddy bottom. Road curves toward southeast. Last half mile has been down grade $2\frac{1}{2}^\circ$. Leaving stream up a steep grade to Bártolo.
- 8.0 Bártolo. Road turns around toward north, passes the small group of houses. Brush on ridge 100 yards to right. Road to right rear to a sawmill 2 leagues away, from there to Dimas. Good for wagons in dry season. San Bartolomé valley in front 0.5 mile. Crosses Río Frío, 30 feet wide, 2 feet deep. Evidences of high water in wet weather, sandy bottom, but steep and mud banks. A serious obstacle in high water. This valley is about 1 mile wide and well cultivated in tobacco. Leaving this point the road becomes a trail and follows up the river about 1 mile, where it crosses a second time. Good ford, but steep mud banks. In places noses of land separated by deep arroyos, extend down to the river banks. These arroyos are very steep, two in the last mile, about the maximum grade for a horse to cross. River is on right up to second ford. Leaving second ford, level for 200 yards; thence up a steep slope to top of ridge. Three small houses, 50 yards to right, and three houses also to left.
- 9.5 Bearing 120° . During next mile, road follows along a ridge in same general direction. The San Bartolomé valley to the left. Another small valley, Río Frío, to the right. In the low ground on both sides patches of cultivation appear with now and then a house.
- 10.0 Tall pines begin; country open.

- Still on ridge, presents appearance of pine forest. No underbrush except in low places. Miles from Dimas.
10.5
- Small house on a knoll, 1,000 yards to left. 10.7
- Road to left along ridge, leads to Veguería de Campanilla de San Bartolomé. 11.0
- Gate through which road passes, road to left to Veguera de Campanilla, 800 yards to left, in low ground. For last mile road follows tortuous crest of sharp ridge, open country, gravelly soil, deep hollows to right and left with tall pines abundant, general direction 120°. Bearing here 140°. 11.5
- The San Bartolomé River still on left, visible at this point about 1 mile distant. Elevation increases by very gentle slope except at points where road crosses over knolls projecting from top of ridge. These knolls occur at frequent intervals and result in steep, difficult places both ascent and descent. 12.0
- Pines disappear on hills to left; grass only remains. On right, pines continue. The ridge is higher than surrounding country, so the landscape to left appears to be a basin cut up by lower ridges. Bounded on the east and north by mountains. Right, country rolling; open except in ravines, soil gravelly. 12.5
- Gate of Santa Casilda de Manaja. Road to left on ridge, to a vega. Just after passing through gate, road to right rear to Dimas, passing between La Jagua and sawmill. Better road than the one just described—better for carts. Seven leagues via this road to Dimas; 300 yards farther second gate. Road turns east at first gate and at second gate turns back south of east, winds down the hill across a dense, brushy ravine, up over another small ridge, thence into the vega. 13.5
- Vega Manaja is situated at the head of Río San Bartolomé, here called Pesquero River. One large almacén. Two other small shacks situated on low knoll. Passes down hill toward river Pesquero, turns south along west bank, up a steep narrow path to top of ridge. Bearing 70°. Dense brush both sides. Valley behind, about 1 mile wide at this point. 14.5
- Road continues to follow ridges Sierra del Anconal and de los Acostas, tortuous, and for most part on top of ridge. Deep wooded ravines on both sides. Bushes at bottom, pines over all, but open country except as stated. General direction, during next 2 miles, about 125°. 15.0

Miles from
Dimos.

- High point. Considerable stretch of ocean visible.
- 17.0** Tall pines and small pines. Road continues down and up for 400 yards to same level, then turns down gently, continuing about level to 17.6 miles.
- 17.6** Turns toward south along hillside and down grade. High ground to right, deep ravine to left.
- 18.0** Bearing, 130° ; along ridge nearly level.
- 19.0** Col, very narrow, dense wood jungle, ravine on both sides, beeches, palms, and pines.
- 19.3** Road passes small knoll. Highest point on west range of hills. Dimas visible; bearing 310° . Road at this point bears a little west of south. Rocky formation, hill tops almost barren.
- 19.6** Road runs down grade, left road also to Los Acostas.
- 20.0** Road changes direction to a little east of south, along a ridge for 250 yards, thence down again. Los Acostas visible against side of mountains. Bearing 140° . Hills barren, scrub pine.
- 20.2** Road runs down top of very sharp ridge, deep ravine on both sides.
- 20.3** Bearing 130° , continues down to 20.6 miles, small arroyo. Road passes around hillside, small arroyos here and there, dry. High ground to right. Leads down a steep grade to Arroyo Bejuco, rocky stream, 6 feet wide, very dangerous in high water. Dense brush, trees, and vines along its banks.
- 21.2** Road to Los Acostas enters again. Road to right rear to La Jagua.
- 21.5** Road runs east along high ridge, wooded ravine, left, high open ground, right 100 yards farther drops into a densely wooded ravine, crosses it.
- 22.2** Road emerges from jungle, bearing 155° . Cultivation and scattering houses to left, 1 mile distant; 600 yards farther, road turns east for 1 mile. Just beyond turn crosses a draw, signs of mud, brush to right, small house to right on ridge, which crosses road just beyond draw.
- 23.2** Top of small ridge, steep on both sides, for 50 yards. Shack to right, cultivation to left. Mountains about half a mile to left, abrupt rocky cliff covered with timber. From this point bearing 135° .
- 23.4** Road turns east. Houses scattered about right and left. Tienda Los Acostas. A projecting nose of mountain cliff immediately in rear of tienda; 300 yards beyond tienda crosses dry arroyo, rocky bottom at base of projecting nose of the mountain.

	Miles from Dimas.
Signs of mud; house to left. Fine cultivation; houses to right and left. Road to Guane bearing 210°. Road bearing 50°. Cliffs closing in 200 yards farther; cliff knob 400 feet high at right. Road runs straight into cañon. Cultivation on both sides; dry arroyo.	24.5
House to right; Río Cuyaguaje to right. Road sandy 0.5 mile.	25.5
Arroyo Mal Paso, rocky bottom, 30 feet wide and 2 feet deep, which breaks out of the side of the cliff in full volume 20 feet to the left of ford. Rough, rocky approaches. Leaving arroyo cliffs open out to about 1,000 yards. Tobacco on both sides, with numerous vegas and hedges. Road sandy for about 1 mile.	26.0
Crosses Cuyaguaje River approached by deep, sunken road. Overhanging cliffs just beyond crossing.	26.5
Cliffs close to edge of road on right, river a few feet away on left; road sandy.	27.0
Lorenzo Crespo tienda, left. Francisco Galón tienda, right.	27.5
Cemetery, right.	28.2
Tienda on left. A tienda is also on the right of the road (San Carlos). The valley is 2 miles in diameter, approximately circular. There are no buildings near the entrance of the west pass. The road runs near the south side of the valley all the way. The hills close in at this point to a narrow pass 150 yards wide, with cultivation and houses running on into pass. Bearing east. The two passes into this valley form the only practicable ways of getting in and out. There is a tunnel through which people can pass on foot, which follows the Cuyaguaje River under the mountain about 1.5 leagues from Sumidero; 300 yards beyond tienda of José Villa, road crosses small stream.	29.0
Crosses a second time; narrowest point of hills. Sierras open out, country rolling, cultivation on both sides. Road runs up a steep grade for 200 yards; small house to right.	29.2
Luis Lazo. Large masonry tienda on left. Small basin here; rolling, open and cultivated. Line of hills rising up toward east, inclosing this basin. Numerous vegas on both sides. Bearing 130°. Road bearing south to Guane, 7 leagues.	29.5
Road turns north, bearing 30°; 400 yards farther crosses same arroyo three times. Very steep banks, impracticable for wagons or ox carts from this point.	30.0

Miles from
Dimas.

- Follows along base of sierras to left up a steep rocky slope.
- 30.5** slope.
- 31.0** Top of low gap. Dense brush on both sides, ground very rocky, grades very difficult. Road leads down a steep grade, high grassy hills to right, sierras to left. Bearing about north. For next mile and a half road follows along a valley, parallel to base of sierras and about 100 to 600 yards from base. High grass on hills to right. Valley cultivated, with scattering houses and called Arenales.
- 32.0** Cliff, stone projection, isolated to left of road 200 feet high. To right, a larger sierra formation, which terminates at 32.5 miles.
- 32.3** Tienda Arenales of Luis Lazo. One league to Sumidero. Fine vegas, in front on both sides. Hills to right open here and there. Country presents gently rolling appearance; cultivated. Road bearing 25° .
- 32.5** Road sunken, leading down to an arroyo. Bearing 30° .
- 33.0** Road crosses an arroyo with fine, clear running water, mud banks, sandy bottom. Still following base of sierras. Soil red clay.
- 34.0** Arroyo; hills close in again, country becomes more rolling; high cliffs near, on left. Road rises for next 0.7 mile up a long grassy ridge. Cultivation in lower ground to left. Sumidero; high cliffs just in rear of town. Between 33 and 34 miles, country flat, cultivated on both sides (tobacco). Leaving town of Sumidero 200 yards, road to left leads to well-cultivated flat, to the cave through mountains into San Carlos valley, distant 4 miles.
- 35.2** Road turns, bearing 140° . Crosses clear, running stream—Arroyo Sumidero—rocky approaches. Country flat for most part; palms, grass, and cultivation on both sides.
- 37.5** Arroyo, with water. Up grade into Cabezas.
- 38.0** Las Cabezas de Montiel. Road to front to Viñales; road to right to El Cerro de Cabras and Guayabo.
- 38.5** Top of ridge. Road crossing at right angles to Viñales and San Juan. Brush and trees on both sides.
- 39.0** Small stream.
- 39.2** Finca of El Mulo. Road to right to San Juan; 200 yards beyond road turns to right. To front to El Cerro de Cabras.
- 39.5** Cuyaguatete River, sandy bottom, steep muddy banks, road good for wagon transportation up to this point.

Miles from
Dimas.

Fine camp ground here. Cuyaguatete River just below finca of El Mulo. Bearing of road 115° , to pass in gap via Loma de Guayabo. A barren rocky hill to the left of the pass. Road visible in gap but follows a tortuous path to this point. Country rolling and open. Road becomes a trail, crossing a ridge, winding down.

Road to right to San Juan. 39.7

Arroyo. Upgrade to finca of Cuazarate, on high ground. 40.0

A small masonry blockhouse just beyond to left. Flat, low, cultivated ground to left; country rolling and open. 40.2

Crosses Arroyo Cuazarate. Headwaters of Cuyaguatete; follows up right bank of stream, 400 yards. 40.2

Road passing over a gravelly ridge, winding and along a sharp ridge 200 yards beyond. Stream on both sides, almost vertically 150 feet below. Trail constantly rises, tortuous and steep, with a deep ravine to left containing good clear water. Country open, hills barren, many scrub pines. 41.0

Top of high ridge; barren, yellowish gravelly soil. Bearing to gaps, 100° . A very high ridge to right. Road winds over ridge. 42.0

Passes over ridge, enters pass, high peak to right. Continues on over low ridges, crosses an arroyo with a little water. 43.0

Road turns down. Road to right at 44.2 miles to San Juan. Bearing 150° , through pass, forward bearing 130° . Road winds up and down, arroyos, one of which has good water. Rises by a very steep grade to highest point. 45.4

Highest point, bare high hill to right rear, knoll to left and right. Road drops by a very steep grade. Shale rock formation, very few pines, open, thin grass. Bearing 110° to Guayabo. Pinar del Río in sight. 45.5

Río de Cerro. Patches of cultivation in distance, to right and left. A number of houses to left, 1 mile. El Cerro visible to left before reaching river, about 1.5 miles; just beyond stream, two shacks to left. 46.0

Top of ridge. Road to right passes small schoolhouse of Guayabo; 200 yards to right, road leads to Lagunillas, thence to San Juan. Good for carts. Road to left to Cerro and Guamá. Down steep grade 300 yards, then level and slightly up grade. 46.3

Numerous houses to left extending for 1.5 miles along base of hills. Some cultivation on both sides; brush in bottom of draws; palms scattered about; country rolling and open. 46.5

Miles from
Dinas.

- Guayabo. Road to right to Río Sequito, Río Feo, Río Seco, San Juan. Good for carts or wagons in dry season.
- 47.2 Leaving Guayabo. Road to right to La Tayo. Road follows along a low ridge, rolling, open, grassy country for most part. A little cultivation on both sides, and scattering houses and palms. Bearing 75° .
- 48.0 Bottom of head of draw. High ground to left. Small house to right.
- 48.2 Small shacks to left. Bearing to top of high ridge, where road crosses due east far ahead. From this point road makes a big bend toward south, bearing southeast for 0.5 mile.
- 48.7 Road turns past two or three houses on ridge to right. Ravines right and left.
- 49.0 Small tienda to left. Road turns about northeast. Wire fence to right.
- 49.2 Road turns to right, downhill, across small stream, winds over a low ridge and downhill again. Woods to right front.
- 49.5 Cross stream, steel bridge, 50 feet long, 30 feet high, in excellent condition. Cultivation to left. Bearing 105° . Road to left from Sumidero. Road winds downhill, turning toward south, crosses Río Sequito on bridge 80 feet long, 35 feet high, steel, hand rails, wood resting on masonry abutments and two masonry piers. For 200 yards evidences of mud. Thence up a steep rocky slope to top of ridge on which are several shacks, pertaining to Río Sequito. Plenty of cultivation; scattering houses to right. Evidences of mud for 0.5 mile.
- 51.0 Road to left to Pinar del Río via Cañas Altas, 0.5 mile to the north. Road to right to Pinar del Río also. Bearing 135° to 140° . Wire fence to left, shacks to left rear, and cultivation.
- 51.5 Signs of mud for next half mile; little cultivation; grassy plain.
- 52.0 Road to right rear to Río Sequito; small tienda to left.
- 52.2 Finca El Palmarito, left. Fincas both sides; also wire fences.
- 54.0 Pinar del Río. Leave Pinar del Río from the north.
- 52.2 Cross Guamá River over bridge, wood, 75 feet long, 20 feet high, condition poor; ice plant on the right.
- 54.5 Roads fork; right hand road to Marcos Vázquez.
- 55.0 Roads fork; left hand road to San José and Viñales.

Roads fork. Right hand road to Consolación del Sur, via Paso Viejo. Tienda at fork; country generally flat and sparsely settled.	Miles from Dimas. 55.5
Paso Viejo River, crossing by ford; gently sloping banks, gravel bottom; during dry season the water is 2 feet deep and 15 feet wide.	57.0
Tiendas right and left.	57.5
Road to left to tienda of San José.	58.2
Road to left rear to San José. Crosses Ajiconal River over ford similar in every respect to that over Paso Viejo River on same road.	60.5
Road to left front to Viñales. Road turns due east. Country flat and wooded on both sides; low scrubby growth.	62.5
Road right front to La Jagua and Consolación del Sur.	63.0
Road to left to La Jagua.	64.2
Pilotos. Leave Pilotos, going east for about 2.5 miles to La Jicoma; a small trail branches from this road 0.2 mile from Pilotos and runs to hills in a northeasterly direction. All this country is cultivated and well watered. Roads level; grass in valley and wood in hills.	64.7
Wagon road from Consolación del Sur, running north-west to hills, crosses the Pilotos road.	65.2
Cross Río Hondo. River here is 20 feet wide and 3 feet deep, 6 miles an hour; is fordable, with easy approaches, bottom sandy. Fluctuation mark 8 feet.	66.0
La Leña, a place of two tiendas, on left of road. Wagon road leaves the second tienda and runs southeast to Consolación del Sur. A trail from the hills in the northeast joins the Pilotos road at first tienda.	67.0
Road crosses main branch of Río Hondo. The river is 40 feet wide, 3 feet deep, and 6-mile current. Fluctuation marks 6 feet. Crossing by ford, approaches good, bottom sandy.	67.7
Wagon road south to Consolación del Sur.	70.0
Trail descends and enters Pilotos valley at Arroyo de Agua (slope 0.2, grade 7 per cent); 200 yards from Arroyo de Agua is a small, shallow, fordable stream crossing the road.	70.5
Trail branches to west to a ridge. Main trail continues on a ridge running between two valleys for 1.5 miles. Scattered houses and cultivation. Valley to west is called Arroyo de Agua and is not cultivated. There is a stream in each valley flowing southeast.	73.5
Trail becomes a road at foot of high hills.	75.0

Miles from
Dimas.

- Trail to Viñales running southwest. Camp site for
77.5 squadron.
78.0 Trail leaving to Caiguanabo to east.
78.2 San Diego River, 8 feet wide, 3 feet deep, 6-mile current, flowing east; steep approaches; high banks; fluctuation marks 5 feet.
 Road enters San Andrés. Leave eastern end of San Andrés and turn to northeast. Road to southeast to Pilotos via Arroyo de Agua.
78.5 Cross Arroyo de San Andrés (Arroyo Corral), 2 feet deep and 12 feet wide; bottom sandy; banks 3 feet high; slope gradual. Wagon road of sand and clay. Camping site.
79.5 Turn east.
80.0 Cross Arroyo Morrillo. Road becomes a trail. Road east to Caiguanabo.
80.2 Pass through a gate and ascend hill; grade 10 per cent. Hills low and covered with grass. No cultivation. Sierra Guacamayas to the east.
81.0 Cross Arroyo Pimienta and ascend hill; grade 25 per cent. Trail difficult, hilly and rocky. Many short, steep grades, covered by loose rock. In places trail paved with cobble stone. Trail follows bed of La Palma River (Río Guacamayas), crossing many times.
84.0 Valley between foothills and sierras. Two shacks. Turn northeast and ascend ridge; grade 10 per cent.
85.2 Descend steep 20 per cent grade and enter the valley of La Palma River. Turn west; cultivation.
85.7 Cross river and follow north bank. Crossing not difficult. Road bed clay. Road to east to Morrillo. Cultivation.
86.2 Turn northwest. Arroyo Simón. Trail; grade 20 per cent. Road west to La Palma.
87.2 La Palma (Consolación del Norte).

ROAD No. 34.

GUANE—JUAN GÓMEZ—MONTEZUELO—MÁNTUA—LOS ARROYOS.

General direction: W. Distance: 29 miles.

NOTE.—During 1908 a metaled road was under construction connecting Guane and Mántua.

IN GENERAL.

1. Guane to Mántua.—This road can be used by army wagons throughout the year. In the dry season it is an excellent road and level for the most part and the existing slopes are very gentle. It is

a dirt road; except in the woods and where wire fences appear, there is nothing to prevent wagons from passing in any direction. A single-wire telegraph line follows this road from Guane to Mántua.

2. Mántua to Los Arroyos.—This road is an excellent wagon road in the dry season, except for the crossing of the river Calanas.

IN DETAIL.

Leaving Guane the road runs nearly due west along ridge with little cultivation. Ridge slopes gently right and left to bottom of valley, parallel to road at about 0.5 mile distance.

Miles from
Guane.

Road crosses small hollow; road forks; left to Paso Real; 400 yards farther road to right to Los Ocujes about 2 leagues to the northwest. This road good for wagons and carts in all seasons, but very hilly. Country open, rolling, and little cultivation. Wire fences on both sides. **1.0**

Bearing about 290°. **1.2**

Road passes over a ridge, turns down about 2 per cent grade bearing 260°. Scattering palms; arroyos fringed with trees appear at about 400 yards to 1,000 yards on both sides. **1.5**

Brush sufficient to offer concealment about 100 yards to left on higher ground. A little farther on road is crossing low hollow, dense brush and trees on both sides. **3.0**

Bearing 225°, school 100 yards to right; wire fence to left; 200 yards farther enters woods with dense underbrush. **3.2**

Crosses Río Guásimal, a clear stream, sandy bottom, low banks, good ford, 20 feet wide, 1 foot deep, fine water. Woods and underbrush continue on both sides; 200 yards beyond stream road turns toward west, bearing 285°. Evidences of bad mud hole during the next half mile. **3.5**

Abundant material for corduroying. Road good in dry season.

Road emerges from woods, bearing 270°. Juan Gómez in sight straight ahead. Road level, wire fences on both sides, passes along a low ridge or small table land. Woods now about 200 yards distant on both sides. **4.0**

Juan Gómez. Leaving Juan Gómez road bears west; 200 yards beyond, road turns south and crosses small stream with sandy bottom, Río San Francisco; brush **5.5**

Miles from
Guane.

- along its banks. A low line of hills, barren, rocky formation 800 yards to right of road at Juan Gómez. Leaving Juan Gómez these hills curve outward from the road to a distance of 1.5 miles, then close in again. Leaving San Francisco River, gentle upgrade for 200 or 300 yards, when road turns west again. Road to left to San Sebastián.
- 6.0 Road turns west following high ground for 2 miles. Country open, uncultivated, except about 1,000 yards to right are vegas along low ground. Scattering stunted palms, but nothing to impede movement of cavalry. One mile west of Juan Gómez road to left to Hato Guane.
- 7.7 Tienda of Veinte de Mayo.
- 8.0 Road passes end of low ridge mentioned above; this ridge could be crossed almost anywhere by cavalry. At this point hills curve away to the right again. The country generally appears a desolate region with numerous stunted palms 6 to 8 feet high and some small bushes. It would, however, be called open country. Bearing 280° road turns down gentle grade.
- 8.5 Río Tenería, small stream, sloping banks, sandy; crossing could be made good for wagons in ten minutes. Banks fringed with palms, some cultivation on either side and several houses scattered about. Leaving Río Tenería road runs over a low ridge, then down across a dry marsh (difficult in rainy season).
- 9.0 Foot of above-mentioned ridge of hills. Road to left leads to a vega. At this point, bearing 300°, runs up 3 per cent grade for about 0.5 mile, then drops down by an easy slope across a small hollow.
- 9.5 Path crosses this hollow. San Sebastián to Manaja, 15 miles to the north. Continuing in the same general direction as before road crosses another ridge, then drops by a grade of about 4.5° to 6° down to Río Salado.
- 10.0 Río Salado, a rocky stream with difficult banks, could be bridged here. Sufficient timber at hand. Farther bank steep and rocky ascent. At present difficult, but passable for wagons. This stream joins Río Tenería farther south. Grade for 200 yards about 7°; thence on for about 2 miles follows the crest of a long ridge, easy grade, direction about due north, scattering palms and now and then tall pines.
- 11.0 Palms less numerous, tall pines predominate. Country open and rolling with steep slopes to the numerous

arroyos which run perpendicular to ridge. Road a little winding, but general direction due north. Miles from Guane.

Road to right front along ridge to Veguería de las Tumbas. Road turns down 4 per cent grade and crosses Río Macagual, small stream, rocky, steep banks, easily prepared. Joins Río Tenería farther south; bearing 300° ; tall pines continue; 4 per cent grade leaving stream. Road then follows ridge same general direction for 1 mile to highest point. 12.0

Road curves to left and follows along over a small ridge, then down by a steep slope to a small stream with its source 200 yards to right. Clear water; country still rolling. 13.0

Highest point of road, round high knob, small brush at top 1,000 yards to left front; similar feature 1,000 yards to right. These two peaks are the most prominent features here. 13.5

Road for Los Remates from Cafetal 3 leagues northeast, crosses 150 yards beyond this point at bottom of hill at right angles; bearing 320° ; 300 yards farther the road turns down a steep hill following the same general direction to the foot where it crosses a small stream 2 feet to 4 feet wide. The most difficult place is over this last half mile. Wagons can travel in any season along this part, but there would be danger of upsetting along the steep hillside. For the first 2.5 miles out of Juan Gómez, the road passes over sandy, hard soil, which would never be very muddy. After reaching the hills the soil is rocky, gravelly formation, as hard as macadam road, never muddy. After passing small stream mentioned above, road turns north for about 0.5 mile level; signs of mud in wet weather. Dense brush on both sides for a short distance. 14.0

Road turns down grade along hillside, bearing north. Montezuelo on left 0.5 mile distant in valley; 400 yards farther the road turns west for 400 yards and crosses the Montezuelo River, which flows into Río Mántua. 14.5

House to left. Road runs west for about 0.2 mile, one house to right, cultivation on both sides. 15.0

Tienda on left of Montezuelo. Pass over a small stream dry at this season, dense brush on both sides; crosses low ridge. 15.5

Stream approached through deep cuts on both sides and a very bad mud hole on far side even at this season. Dense brush, abundant for corduroy. Road continues 16.0

Miles from
Guane.

- almost due north, slight up grade, crossing dry arroyos. Brush on both sides sufficient for concealing small bodies. Cultivation and houses on left.
- 16.5** Road straight ahead leads to Naranjal, 1 league north. Left front up grade to Mántua. Open country.
- 17.0** High point. Road to right on ridge to finca. High hill 600 yards to front, and one 1,000 yards to left front; bearing 270° for 400 yards, where it crosses the highest point.
- 17.7** Highest point; road to left over high peak to Lazaro. Country visible for miles in all directions and appears open and rolling and looks like a waste; covered with grass and scattering palms and pines. Mántua is in plain view, 0.5 league away; bearing 330° . General direction of road 270° , winds down the hill, visible for over a mile, very good road. Looks like a turnpike from this point. Slope about 3.5° ; 400 yards farther this calzada begins and continues for 2 miles to south edge of Mántua. For 0.5 mile the road winds down grade, curves around over stone culvert 10 feet long, 8 feet high, up over another ridge, then down 1 mile to the Mántua River, a stream with steep banks, sandy bottom, 40 feet wide and 1 foot deep at this season. It is spanned by a fine steel bridge about 100 feet long, 50 feet above water, masonry abutments; 400 yards farther, road turns north, and enters town one-third of a mile farther on.
- 20.0** Mántua. Road ahead level for about 2 miles; open country with scattering palm trees.
- 22.0** Small stream.
- 24.0** Slightly rolling country, good road.
- 25.0** Scattered pine timber for about a mile.
- 27.0** Río Calanas, heavy underbrush and woods on both sides of road; on far side, crossing river, ground very miry.
- 29.0** The Los Arroyos road from river to Los Arroyos leads through a heavy underbrush and scattered timber.

ROAD No. 35.**GUANE—LIMPIO FRANCISCO—GRAMALES—PEÑA BLANCA—MALAS AGUAS.**

General direction: N. Distance: 44.8 miles.

NOTE.—During 1908 a metaled road was constructed connecting Guane and Tenería. This road construction is being continued to Isabel-María.

IN GENERAL.

1. Guane to Limpio Francisco.—A good, broad, unimproved dirt cart road to within 1.6 miles of Limpio Francisco. The road averages from 16 to 20 feet in width. It runs through cultivated valleys and has very few grades of any consequence. In wet weather it is poorly drained. The cart road commencing 1.6 miles from Limpio Francisco averages about 8 feet wide and runs across some wooded hills between the Los Acostas and Francisco valleys. Wagon road in dry season practicable for any kind of transportation. Cart road practicable for carts. Telephone line as far as Los Acostas with connection at Los Portales, La Tenería, Punta de la Sierra, and Los Acostas. To the west of this road is the Sierra de los Acostas.

2. Limpio Francisco to Gramales is a cart road. It is practically level and has an earth surface.

3. Gramales to Peña Blanca.—A dirt road about 10 feet wide, good condition, and practicable for army wagons. Materials for repairs are plentiful, as road runs over rocky ridge covered with pines. Leaving Gramales road ascends by a very steep grade to top of Sierra de Gramales, which it follows for the greater part of the route. The Sierra itself is a succession of small hilltops and their projecting spurs; grades not difficult. There is nothing to impede the usual rate of march except grades mentioned.

Descending into Peña Blanca the grade is one-sixth to one-fifth. To the north of this ridge the country is rolling and covered with pine; to the south the valley of Gramales, cultivated in tobacco and with an average width of 0.7 mile.

4. Peña Blanca to Malas Aguas.—A good cart road, passing through Pimienta de Peña Blanca, Pan de Azúcar, thence to Malas Aguas. From Peña Blanca to Punta Pan de Azúcar road runs through low wooded country and would be almost impassable during rainy season on account of soft loamy soil. This region is watered by Río Malas Aguas.

From Punta Pan de Azúcar to Malas Aguas road ascends hills which are low and irregular. Roadbed of sand and clay and not liable to be boggy. There are no steep grades. Country is very thinly settled and there is little or no cultivation.

Road leaves hills about 1.5 miles south of Malas Aguas and runs through gently rolling country covered with scrub oak and underbrush. Roadbed sandy.

IN DETAIL.

Miles from
Guane.

Commencing at Guane the road crosses a small wooden bridge over Arroyo Zarzal. Bridge is made of wood, good condition, has brick abutments, 20 feet long, 12 feet wide; arroyo 10 feet deep. Small stream flows eastward into the Cuyaguaje. From the bridge the road runs northeast. Right, cultivated land and scattered houses; river 0.4 mile. Left, pasture land.

- 0.3 Wagon road branches northwest. This road runs northwest 0.4 mile, where one branch runs northwest toward Río Frío; the other branch then turns northeast and runs 0.6 mile to bridge. Here it is joined by another road coming from the northwest. Bridge is of steel, in good condition; abutments and piers, stone; 100 feet long and 20 feet wide. Height above Cuyaguaje about 30 feet. Río Cuyaguaje, width 50 feet, depth 3 feet, current 4 miles, fluctuation marks 15 feet. Not fordable near bridge, but fordable about 1 mile southeast. From the bridge a road branches to the hills in the northwest. The main road runs northeast for 0.6 mile, where a road branches to the hills in the northwest. The road then runs 0.3 mile southeast and 0.3 mile northwest to where it again joins the road it left. This road on account of the bridges is used in the wet season and the other (the shorter) in the dry season. Country along the branch road is cultivated and has many scattered houses. Main road then turns nearly due east and runs to the Río Cuyaguaje. Right, cultivated land to the river; river 0.2 mile. Left, cultivated land and eight houses.
- 1.2 Río Cuyaguaje, 30 feet wide, 3 feet deep, current about 4 miles, fluctuation marks 8 feet; fordable in dry season. Approaches gradual and sandy, bottom gravel. Road runs northeast. Right, cultivated in patches to mountain; mountain, 0.3 mile; brickyard and 2 houses. Left, cultivated; road ascends 100 feet, slope gradual.
- 1.9 Road joins from southwest (branch road that left near the bridge). Road continues northeast, ascends 50 feet, slope gradual.
- 3.0 Trail branches northwest to houses in hills. Right and left, cultivated land with many scattered houses.

Los Portales; name of district. Two tiendas, one on right and one on left of road. A road branches due east, north of the tienda and runs through hills to Valle. Road ascends 50 feet, slope gradual. Miles from Guane. 3.9

Large house and barn on the left of the road. A cart road branches west, running to hills. Road crosses 50-foot hill, slope gradual. 4.9

Tienda on left of road. Part of the district of La Tenería. Cart road branches west to hills. Right and left, cultivated land and scattered houses. Hills 0.6 mile to west and 0.4 mile to east. Scattered rocks 0.3 mile to west. 6.8

La Tenería; name of district. Two tiendas, one on right and one to left of the road. Between the two tiendas the road crosses a brick culvert. Culvert is 16 feet long, 12 feet wide, is of brick, and in good condition; height above arroyo 16 feet, brick curbing. Small stream flows west to Río Cuyaguaje. A cart road branches northwest from road, leaving it near the tienda to the left of the road. A road branches to the northeast through the hills to Luis Lazo, leaving the road near the tienda on the right of the road. Main road here turns due north. 7.7

Tienda, right of the road. Trail branches west to houses. La Tenería valley is cultivated and contains many scattered houses. 8.0

Arroyo Tenería. Small, shallow, fordable stream flowing west to the river (Arroyo Tenería always contains water, no matter how dry the surrounding country). It is the dividing line between the district of La Tenería and Punta de la Sierra. Road turns northeast; crosses a 50-foot hill; slope gradual. Hills covered with light underbrush. 8.4

Cart road branches northwest to hills. 9.6

Punta de la Sierra. The village lies at the point of a large mountain range which runs northwest and southeast. Another large mountain range running east and west also comes to a point here. There is a narrow gap between the two. High hills join the mountain on the east. Many small trails run to the high hills. A road running northeast passes through the gap and runs to Luis Lazo. Main road then turns northwest and runs along the mountain range. Right and left, cultivated, with scattered houses. Cuchillas de los Contadores, 0.4 mile to right. 11.1

Miles from
Guane.

- Road branches southwest to hills. Tienda at junction
- 11.6** of the roads on the left. Cemetery on left of the road, about 200 yards from the tienda; brick wall. Right and left, cultivated, and scattered houses. Arroyo Punta de la Sierra runs along base of the mountain.
- 12.3** Cart road branches northwest across cultivated land to the Río Cuyaguaje; crosses the river and runs nearly due north, where it crosses a small creek. From here it becomes a wagon road and runs nearly due north across cultivated land to Los Acostas, where it again joins the main road. Río Cuyaguaje at cart road crossing, width 30 feet, depth 4 feet, current about 3 miles, fluctuation marks 10 feet, fordable, approaches steep and difficult, bottom rocky. Where the cart road leaves the main road there are two houses and a ruined blockhouse. Main road runs due north between cultivated patches and scattered houses. Patches of light underbrush and scattered rocks.
- 13.2** Road crosses Arroyo Punta de la Sierra. A shallow stream flowing southwest.
- 14.1** Road crosses a small wooden bridge, in a poor condition. Bridge 8 feet long, 12 feet wide, wooden railing; height over arroyo, 8 feet. Road here turns northwest and runs near base of mountain, Sierra Luis Lazo.
- 15.2** Road branches to northeast to Julian Gener.
- 15.3** Road crosses Río Cuyaguaje, 40 feet wide, 2.5 feet deep, current about 4 miles, fluctuation marks 8 feet; fordable in dry season, approaches easy, and bottom gravel.
- 15.6** Los Acostas, name of district. Many scattered houses in valley and one tienda. A bakery is alongside of the tienda. Both on the right of the road. A wagon road runs northeast to San Carlos and Luis Lazo. A cart road runs west to Asiento Viejo. The main road continues north to Pesquero and Limpio Francisco.
- 15.9** Road branches northeast to San Carlos and Luis Lazo.
- 16.5** Crosses small stream flowing east.
- 16.7** Pesquero. Part of Los Acostas. Number of scattered houses. One tienda. Road branches southeast to San Carlos and Luis Lazo. Road branches northwest to Manaja. Main road continues in a northern direction through cultivated country.
- 17.4** Road crosses a small stream flowing southeast. Road then crosses a 100-foot hill, slope gradual.

Crosses a small stream flowing east. Road then crosses a 50-foot hill, slope gradual.	Miles from Guane. 18.3
Crosses and re-crosses former creek.	18.8
Road becomes a cart road. Country becomes hilly and heavily wooded. No houses, no cultivation. Road crosses a 150-foot hill, slopes about 12 per cent	19.3
Descends 50-foot hill to stream. Slope gradual.	20.0
Crosses small stream flowing southeast. Road ascends 100 feet, slope gradual.	
Road turns northeast and gradually descends 50 feet.	20.7
Cultivation and houses commence. (Francisco valley.)	21.3
Limpio Francisco. Name of district is Francisco.	22.3
Number of scattered houses and a schoolhouse. From tienda Limpio Francisco a cart road runs northwest to Manaja and one northeast to Francisco Central and to Gramales. Good camping places through valleys up to Los Acostas. The Francisco valley is cultivated and has an abundant growth of good grass. During the dry season water is scarce, the only stream, Río Seco, flowing west, is behind a small hill about 300 yards from the road. This is a mere creek.	
Road passes a tienda on right called Francisco Central. Here a trail leads to high hills and joins Gramales-Manaja trail on first ridge. On left of road near tienda are about six scattered houses, one a school. West of tienda is a dry run crossing the road.	23.8
Pass two lumber drags leading to hills on left.	24.7
Two small, fordable creeks across road, about 200 yards apart, flowing in northwest direction. Between these creeks a trail leads to high hills on left.	25.8
A trail branches in northwest direction and a cart road branches northeast into Sumidero valley where it joins the Gramales-Sumidero road. The road then runs down into the Francisco valley in a southwest direction.	26.6
Road crosses two ridges, passing a tobacco shed on the left. (Grades 10 per cent.)	27.2
Gramales; a tienda, and several houses and tobacco sheds. Scattered houses and sheds in valleys east and west. From Gramales, roads run east and southeast through Sumidero to Pinar del Río, north and northwest to Baja and Río del Medio, northwest to Nombre de Dios, north to Peña Blanca, and west to Dimas. The road from Gramales to Francisco leaves the Gramales-Sumidero road 150 yards from the tienda. Leave Gramales.	27.3

Miles from
Guane.

- On left on a hilltop an iron reservoir 20 by 20 by 8 feet, elevated on brick piers. This is fed by a 5-inch iron pipe from a sawmill on the Gramales River 0.5 miles away. A 4-inch pipe carries water from the reservoir into the valley and to the tienda.
- 28.0** Peña Blanca River flowing north into Río Malas Aguas; width 18 feet, depth 2.5 feet, velocity about 1.5 miles per hour; bottom rocky. Passable at this ford for army wagons. There are several fords to the north of the road practicable only for cavalry, infantry, and pack transportation. The steep ascent from Gramales would be a strong position facing that place. The entire valley and road are commanded by it.
- 28.8** The same may be said in a lesser degree of the descent into Peña Blanca. The Malas Aguas-Peña Blanca valley is a good camping place for a brigade; grass, water and fuel in abundance. This is the only practicable road from Gramales to Peña Blanca, and the trails turning off to the right and left lead, respectively, into the valley and into the hills.
- 32.3** Road to the right to Santo Tomás connecting with Peña Blanca road. Turns west of north. Roadbed of loamy soil. Thick underbrush.
- 32.6** Pimienta de Peña Blanca. Small settlement. School-house on left of road. Trail to the right connecting again with main road 0.7 mile beyond. District under cultivation.
- 34.1** Crosses Pan de Azúcar River. Crossing good. Current moderate, banks low. Width 15 to 20 feet. Crossing would probably be difficult if river were swollen by heavy rains. The crossing by trail mentioned above; banks 15 to 20 feet high and very steep; ford in other respects as described above, except that it would be impossible to cross at this point if stream were badly swollen.
- 34.8** Trail mentioned above enters from south.
- 34.9** Road passes through gate.
- 35.0** Punta Pan de Azúcar. Road passes through gate and turns to left, crossing river. Depth of river 10 inches, bottom sandy with a number of large rocks scattered over it. Current good, banks low—nearly level with stream. Road turns northeast.
- 35.3** Road divides on entering small clearing. Road to east to white house called Pan de Azúcar and to Abra.
- 38.8**

Road enters from left. Main road turns east and descends hills. Miles from Guane. 39.1

Turns northwest and then a little east of north for about 2 miles. Hills irregular, but no long or steep grades. Thin growth of pine. Roadbed firm clay and sand. 39.6

Road divides. To east to Corralillo. Main road turns northwest and runs along low ridge for about a mile. 41.3

Descends ridge; grade 10°. Crosses dry bed of stream and ascends opposite ridge; slope gradual. Light growth of pine. Roadbed firm clay and sand. 42.8

Road debauches from hills between two prominent knolls about 100 feet high; that to east larger and a little higher. Thence to Malas Aguas through rolling country and scrub oak. Roadbed of sand. 44.3

Malas Aguas. A farm. Two or three buildings. Point here named Peña Blanca is not the center of the district but the situation of the tienda, which is generally known as Peña Blanca, and is in that district. Punta Pan de Azúcar is generally simply known as Pan de Azúcar, but Pan de Azúcar proper, the center of the district, is the location of a white house. 44.8

ROAD No. 36.

SANTA LUCÍA—MATA HAMBRE—PEÑA BLANCA—GRAMALES—SUMIDERO—PUNTA DE LA SIERRA.

General direction: SE. to Sumidero, and from there SW. to Punta de la Sierra. Distance: 38 miles.

IN GENERAL.

1. Santa Lucía to Mata Hambre (hill road on west side of Malas Aguas River).—Ordinary dirt road, 7 to 10 feet wide; good condition. Materials for repairs plentiful, as road runs over rocky hills covered with pine and live-oak growth. Grades easy, no defiles. Road good for wagons, but a broken bridge would have to be repaired, or ford improved. Roadway high and not subject to large washouts. Nothing to impede usual rate of march, except the broken bridge mentioned above. The road for almost its entire length crosses the small spurs of Loma la Vigía and Santa Lucía, running northeast into the Malas Aguas River valley, a small valley 2 miles from Santa Lucía, cultivated in tobacco. The ascent into the hills from Santa Lucía is very gradual and forms only a fair position, commanding road for

only about 500 yards. The descent into Mata Hambre is longer and very winding, and the hills there command the valley of Mata Hambre and the roads through it.

2. Mata Hambre to Peña Blanca.—An ordinary dirt road, about 10 feet wide, condition good; material for repair plentiful, as the road runs over a rocky ridge covered with pine. Out of Mata Hambre the grades are steep where it ascends from the Mata Hambre valley onto the ridge known as Loma Peña Blanca, which it then follows. The ridge itself is a succession of small hilltops and their connecting spurs. Descending from Peña Blanca the grade is about one-sixth to one-fifth. Río Mina is 9 feet wide and 1 foot deep; sluggish; velocity, 0.5 mile an hour. Bottom rocky; banks low but steep; fords of road good. A regiment could camp in valley of Mina. The steep ascent from Mata Hambre would be a strong position facing Mata Hambre. It commands the entire valley and road. The same may be said to a lesser degree of the descent into Peña Blanca. The roadway is hard to follow in the sitio of Peña Blanca as it separates itself into numerous trails leading to different shacks.

3. Peña Blanca to Gramales.—A dirt road, 10 feet wide, good condition, and practicable for army wagons. Materials for repairs are plentiful, as road runs over a country rocky and covered with pines. It crosses La Sierra de Gramales.

4. Gramales to Sumidero.—A fairly good dirt road in the dry season, practicable for lightly-loaded wagons. It winds in and out among perpendicular limestone cliffs and is generally level. In the rainy season it is practicable for pack transportation only.

5. Sumidero to Punta de la Sierra.—A hilly and rocky dirt road as far as Luis Lazo. From here to Punta de la Sierra is a valley road through narrow gorges varying in width from 1 mile to 200 yards. It is bounded on the west by perpendicular limestone cliffs and on the east by almost impassable sloping mountains. Impassable in any season for other than pack transportation.

IN DETAIL.

Miles from Santa
Lucía.

Tienda at Santa Lucía.

- 1.2 Road to left to Malas Aguas, and road to right to Nombre de Dios.
- 3.5 Road ascends gently sloping hill.
- 4.5 Crosses small valley, one broken bridge 3 miles from tienda of Santa Lucía where road crosses a small branch of the Arroyo de las Nieves. The road now crosses this stream by a very difficult ford with steep banks, and would be impassable at this point for wagon transportation.
- 6.0 Road turns sharply to the left. Road to right to Jobos.

Road descends into Mata Hambre valley and ties close onto the road through that settlement.	Miles from Santa Lucía. 9.5
Cross small branch of Río Mina.	10.0
Road crosses Río Mina; 9 feet wide 0.5 foot deep; sluggish; steep banks, but low; fords of road good.	11.0
Mina valley.	11.5
Road to left to Mata Hambre.	11.7
Steep hill commanding road for 0.5 mile.	12.0
Road to right to Gramales.	13.0
Río Peña Blanca (Malas Aguas); 18 feet wide, 1.5 feet deep; velocity 1.5 miles an hour; bottom rocky. There are several fords to north of road practicable only for infantry and cavalry.	13.2
Peña Blanca. (For road notes connecting Peña Blanca and Gramales, <i>see</i> Guane-Limpio Francisco-Gramales-Peña Blanca-Malas Aguas road from 27.3 to 34.1 mile points.)	14.0
Gramales.	20.8
Ridge overlooking valley beyond.	21.0
Road to right up a hill to Los Acostas via Francisco and Limpio Francisco.	21.8
Road passes through gate.	22.0
Tienda on right; mountains on both sides 0.5 mile distant; intervening country cultivated with tobacco. Trail to right front to pumping station and small concrete reservoir (fed by springs) used for irrigating.	22.6
Road to left circles an isolated mountain close to road and comes back into main road 1.2 miles farther on.	23.0
Cross Cuyaguaje River by ford; good water; banks sloping; gravel bottom; river in dry season 18 feet wide and 2 feet deep. Camp site for troop. Two hundred yards farther on, a tienda on left. Road to right leads to large pocket 2 miles long and 1 mile broad. Cultivated in tobacco. The Cuyaguaje River flows into this pocket and through cave into mountains and into another smaller pocket; thence into another cave into the San Carlos valley. Road changes direction abruptly at this point. The cave through which Río Cuyaguaje flows is known as El Resolladero.	25.3
Enter Sumidero. Cliffs close by on right. From this point a road runs northeast to Peña Blanca and one west to Pica Pica. Leave Sumidero.	26.5
Road passes through scattered settlement of Calientes. Cross Arroyo Calientes which runs into the sierra. From this point the road is rough and rocky.	28.0

Miles from Santa
Lucía.

- 30.0 Tienda on right. Road winds between two mogotes.
- 31.0 Reach summit of pass between the sierra and the high hills on left. From this point the road descends rapidly into Luis Lazo valley, crosses the Arroyo del Harto and joins San Juan-Luis Lazo road. Leave San Juan y Martinez-Luis Lazo road 0.2 mile west of the junction of this road with the road from Sumidero to Luis Lazo. Country on both sides under cultivation where the width of the valley permits.
- 32.2 Tienda on right.
- 33.0 Cross Arroyo Manacas. This arroyo, in common with all others that cross this part of the road, flows into caves in the limestone cliffs.
- 33.2 Cross Arroyo Majagua.
- 34.0 Cross Arroyo de la Cantera.
- 35.2 From this point for next 0.4 of a mile the road runs through the rocky bed of an arroyo which winds across the road many times.
- 37.0 Cross arroyo. Valley widens; more houses and cultivation.
- 38.0 Punta de la Sierra.

ROAD No. 37.

GUANAJAY—MERCEDES—SANTA TERESA—CAYAJABOS—FINCAS BARBÓN—PICAS DE GAYA—CASA BLANCA—CUZCO—MERCED DE BOCUR—BEBING—DOLORES—MORENO—SAN BLAS—ESPERANZA—LLANO—CHIPÍ—BAHÍA HONDA.

General direction: W. Distance: 45.5 miles.

IN GENERAL.

1. Guanajay to Cayajabos is a trail, generally in good condition, but bad in low places.

2. Cayajabos to Bahía Honda. Carts can be taken over the road up to Barbón during the dry season. From Barbón the road is passable for a pack train. From the 31.2-mile point into Bahía Honda carts can also be used. The water supply in the mountains is of good quality and abundant in quantity. In the lowlands and foothills, cattle are quite abundant. In the mountains there are many hogs which seem to be running wild.

IN DETAIL.

The trail from Guanajay to "Puintz place" is fair, though bad in low places. It would be difficult in rainy weather. From Puintz place (just beyond Mercedes) is difficult and not practicable for wagon transportation. Wagons loaded lightly could probably get through if there had been no rain for some time, but the road would be exceedingly difficult even for pack animals in the rainy season, and detours would be necessary.

Miles from
Guanajay.

Cayajabos. Leaving Cayajabos a little west of north over Cabañas trail, continue in that direction for 1 mile to finca San Isidro, where trail comes in from the east from Guanajay. Continue on Cabañas trail for 0.5 mile to where trail branches, one to Cabañas continuing on north-west; one to Barbón running southwest following a long ridge, rising steadily; country not cultivated; large number of palm trees on all sides; trail broad and passable for carts in dry season. 12.0 13.5

At 3.5 miles from Cayajabos, trail comes out on an open ridge, where Mount La Gloria can be seen due southwest and about 3 miles distant, and brown topped mountains about 3 miles to west. Trail leads out on ridge overlooking valley on both sides; at this point what looks like a broad trail can be seen on brown topped mountains straight west. Trail here turns northwest through small growth of timber, where the proper trail turns west to Barbón. Another broad trail continues on northwest for a short distance, but at a distance of about 0.5 mile is completely blocked by fallen trees. Barbón trail continues on through small growth of trees, comes out on cleared ridge, descends slightly, and at 4 miles from Cayajabos crosses a small stream 6 inches deep and 6 feet wide, fairly good water, easy approaches, and rock bottom. From here trail rises steadily, turns west to top of ridge, then southwest along ridge covered with small growth of trees, then descending short distance to lower ridge, turns west, and enters broad trail showing heavy travel, which is only 0.7 mile from Barbón. Barbón is a finca of two shacks where charcoal is made. 15.5 16.7 17.0

Trail continues on through Barbón due west and narrowing crosses dry creek bed, turns south and continues on to La Gloria. After crossing dry creek bed, small trail branches off to west past an old shack; trail rocky 17.0 17.7

Miles from
Guanajay.

- 18.2 and narrow, descends slightly and crosses small stream, 6 inches deep by 4 feet wide, easy approaches, gravelly bottom, ascends rather abruptly past old stone ruin to cleared hill, where mountains can be seen on both sides with the pass directly in front, general direction west.
- 18.7 Ascent continues gradually, and considerable dead brush in trail indicates but little use; descends slightly, crosses small stream, then ascends abruptly over rocky trail to cleared hill, circling around, descending slightly crosses small stream, and continues southwest. Trail branches;
- 21.0 one running west to sitio La Palada; the other continues,
- 22.7 crossing another small stream at sitio Latong. Grazing and water good, sufficient camp ground for infantry or troop of cavalry. Trail continues on in westerly direction, crossing small stream ten times in 2 miles, rock and gravelly bottom, easy approaches, not over 10 feet wide by 1 foot deep, trail running through valley covered with thick growth of small trees. Last half a mile trail rough, owing to the roots of trees, and ascends steadily to Picas de Gaya.
- 25.2 Ascent from here very steep, trail rocky.
- 26.0 Comes out on cleared hill, descends short distance to northwest, turns west, crosses small stream running north twice within 100 yards. Trail then turns southwest, following stream to Casa Blanca. Trail runs southwest from Casa Blanca, at about 200 yards turns west and
- 27.0 follows same stream, crossing tributary stream, trail turns southwest and in a short distance beyond crosses
- 27.2 another stream which empties into the main stream. At this point trail divides, one leading southwest goes to Candelaria via fincas La Rita and Santa Catalina de Lahorí, the trail to Merced continues west, zigzagging up steep hill, arriving on top of hill where Mount La Mabote or Manantiales can be seen to the southwest.
- 28.0 The Candelaria trail passes on the east side of this mountain after following La Rita trail for about 0.5 mile. From this point Mount Cuzco can also be seen straight west. The trail continuing west rises to ridge of Mount Cuzco after a steep ascent, continuing west to
- 28.5 house.
- 28.7 From the house, trail to southwest leads to La Rita, trail west continuing on to Merced, where trail leads off northwest to the finca Merced de Bocur, which is only 0.7 mile distant. About 100 yards beyond house, La Rita and Cielo trail turns off southwest along ridge; it

is broad and well defined. Trail to south descends going to Brujo, crosses small stream, and about 50 yards beyond comes into main trail leading west to Brujo. Miles from Guanajay.

Follow trail west to bank of small stream running north-east, then southwest along stream, trail broad and sandy, turns northwest and ascends for short distance to old stone ruin, then southwest, and 0.2 mile beyond trail comes in from the north. From Merced de Bocur, crosses a stream twice in 100 yards; at second crossing trail branches off to the west to fincas Dolores and Moreno, main trail continues on to the southwest, ascending steadily to finca Bebing 6.7 miles from sitio Sotong. Trail ends here.

Returning to where trail branches, take trail to Moreno, 50 yards beyond cross small stream, follow same for short distance, and ascend small ridge, then descend to bank of stream, crossing four times in 300 yards, general direction west. Follow stream for 0.5 mile, then crossing again twice in 50 yards, continuing along bank, crossing stream twice, ascending slightly to finca Dolores (wire fence inclosure, one shack, and two barns).

From here trail descends to stream; cross same, turn southwest, and ascend long steep ridge to top, where trail leads off south along top of ridge to where trail branches; one leading off south to Saroa along ridge, and one branches southwest to Bahía Honda, descending side of ridge, very steep and rocky to bottom of descent, where trail leads into well-beaten trail from Saroa from the southeast. Trail to Bahía Honda continues northwest; cross small stream, crossing again a short distance beyond, continuing on to finca La Furnia, where trail turns north, crosses small stream, ascends a short distance, then descending and crossing stream, continuing along bank, crossing again a short distance beyond, turning northwest, and ascending to top of ridge. Trail well worn, but narrow. Trail descends to old stone ruin, wire fence between trail and stream, cross small stream which empties into main stream, where trail divides, both leading to Bahía Honda. Trail on west bank, however, is very difficult for horses. Crossing stream, trail continues along bank, crossing small stream twice and continuing northwest to Moreno, continues northwest, recross stream 50 yards from house; here trail divides, one leading northwest goes to finca San Pedro, located about 0.2 mile from this point; other trail leads north,

Miles from
Guanajay.

- 34.7** crosses stream, ascends long, steep slope to ridge, where trail is wide and lined for some distance by avenue of old trees. Hundred yards beyond, where descent begins toward the west, Bahía Honda can be seen to the north-west. Descent from this point very steep to bottom,
- 35.2** where trail crosses small stream flowing northwest.
- 35.7** Trail continues along bed of stream 0.5 mile to San Blas. Trail continues on northwest, crosses small stream twice.
- 36.2** At second crossing trail divides, one north to San Diego de Nuñez, one east to Ceiba, and one northwest to Bahía Honda. Half a mile beyond trail ascends steadily, where descent begins; trail divides, one north to San
- 37.0** Diego de Nuñez, one northwest to Camarones and Bahía Honda; descending to small stream, cross same and trail
- 37.2** again divides, one leading north to San Diego de Nuñez, one west to Bahía Honda through finca Esperanza crossing small stream, ascending slightly follows small ridge to finca Llano. Trail here leads southwest for a short distance, then west to finca Chipi, 0.7 mile beyond crosses
- 39.2** small stream, ascends rocky slope to the southeast, and
- 39.5** then turns northwest through growth of small trees.
- 40.2** Trail continues across small hills, general direction north-
- 41.2** west, crosses small stream, then ascends slightly for short distance, 0.2 mile beyond ascends steep rocky slope to ridge, continuing along same for a short distance, then
- 42.2** descends, crossing small stream 12 feet wide by 3 feet deep, gravel bottom, easy approach, water good. At this point another trail comes in from finca Llano. Trail is now practically out of the foothills, continues over good pasture land, broad and well defined, practicable for loaded carts. Good camp for regiment of infantry or cavalry. Trail gradually turns west, following along
- 44.0** ridge from which Bahía Honda can be seen to the northwest.
- 44.5** Descends gradually, crosses another small stream, and 0.5 mile beyond connects with Bahía Honda-San Diego de Nuñez road, 50 yards beyond an iron bridge, wooden flooring, crosses the Montaña River. At this point the river is only 20 feet wide by 1 foot deep, with high banks; it is subject to sudden rises, however, and during the rainy season frequently floods the entire valley.
- 45.5** From this point the road continues due west to Bahía Honda. It is an old road over bed rock, into which deep ruts have been worn by years of travel. Just as it enters Bahía Honda it connects with the surveyed site for the calzada between Bahía Honda and Cabañas.

ROAD No. 38.

VIÑALES—CEJA ANA DE LUNA—LA JAGUA—CUATRO CAMINOS—
TIENDA SAN PEDRO (EL ROSARIO)—ESPERANZA.

General direction: From Viñales to Cuatro Caminos, NE.; from Cuatro Caminos to Esperanza, W. Distance: 17.7 miles.

IN GENERAL.

1. Viñales to La Jagua.—Wagon road nearly due east to point 5.5 miles from Viñales; thence to La Jagua merely a trail passable only for pack trains in most places. Width of road 16 feet; grades easy except one about a mile out of Viñales when a slope of about 10° is encountered, and the road is badly washed out. Surfacing firm, sandy clay, and road could easily be kept in good condition as far as the wagon road proper extends.

2. La Jagua to Cuatro Caminos.—A cart road through hills and brush. No very difficult grades. Crosses a small arroyo 0.8 mile south of Cuatro Caminos, and runs parallel and near river for about a mile.

3. Cuatro Caminos to Esperanza.—A cart road passing farming district of El Rosario to Río El Rosario; thence a trail, passing through rolling country under cultivation.

IN DETAIL.

Río Hondo, the one stream of any importance after leaving Viñales is bridged—bridge of logs, in good condition; stream small, but has steep banks; bottom mud and sand. As it is very narrow and more in the nature of a ditch, it could never present a serious obstacle. After crossing this bridge, the road runs due north; that portion in the vicinity of the bridge and about 0.5 mile north of it would be almost impassable during the wet season on account of mud. Road turns north here. After leaving the vicinity of Viñales the country generally through which this road passes is either under cultivation or affords good pasture land.

The road plays out to a mere trail that follows the ridge line along the northern line of the hills. In places it is very steep and difficult for a distance of 1.5 to 2 miles, when it descends the ridge along a trail difficult for even a pack train to La Jagua Vieja (a part of La Jagua). Thence to La Jagua the road is difficult most of the way; would be passable for bull carts under ordinary conditions.

There are no good camp sites after leaving Viñales until arriving at a point about 2 miles southwest of La Jagua,

Miles from
Viñales.

2.5

5.5

6.0

- Miles from
Viñales.
- where there is a stream which would furnish water for one troop. Good grazing for horses in vicinity.
- 7.0 Small stream. Country from crossing to La Jagua practically all under cultivation.
- 8.0 La Jagua.
- 8.5 Road turns west, passing through oak woods and hills. Grades steep but not long. Road bed gravel and clay.
- 8.9 Cart road southwest to La Mina.
- 9.8 Trail to south to La Mina. Country hilly and covered with woods.
- 11.0 Trail to west to farm. Road runs due north along river and crosses small creek. Country open, with grass. Road in good condition.
- 11.7 Roadbed clay and sand, hilly, no long or steep grades. Pass through a gate, go north and reach Cuatro Caminos. Cross road. Road to Berracos to the north; to La Palma and Río Blanco, east.
- 12.7 Descend from ridge. Cross Río Jagua, banks 8 feet high and steep, bottom muddy; impassable after heavy rains. Join La Jagua-Berracos road. Pass house on hilltop and pass through a gate. Descend from ridge to trail. A trail to the south to La Mina, La Jagua, and La Palma.
- 14.5 Pass through low pasture along river. Cross El Rosario River; bridge, 40 by 16 feet, and 6 feet high; good repair.
- 15.0 Cart road running south to El Rosario River. Trail east to farmhouse.
- 15.8 Gradually descend from ridge. El Rosario district.
- 17.7 Cultivated district. Tienda San Pedro (El Rosario). Pass brickyard and enter Esperanza at south end.

ROAD No. 39.

SAN ANDRÉS—LA JAGUA (ALONG TELEGRAPH LINE)—BERRACOS— RÍO BLANCO.

General direction: From San Andrés to Berracos, N., and thence E. to Río Blanco.
Distance: 15 miles.

IN GENERAL.

1. San Andrés to La Jagua.—Road leaves western end of San Andrés and runs northwest. Follows telegraph line.

2. La Jagua to Berracos.—A cart road through hills and brush. No difficult grades. Crosses a small arroyo 0.8 mile south of Cuatro Caminos.

3. Berracos to Río Blanco.—A cart road running due east along coast.

IN-DETAIL.

Leave western end of San Andrés and run northwest. Follow telegraph line to La Jagua. Leave on a cart road, clay and sand bed. Miles from San Andrés.

Becomes a trail. Cross Río Diego near its source. 2.0
Crossing good, bottom clay; very little water; banks low. Before crossing, pass small farm.

Pass small farm, rolling country. A trail goes west to Viñales. Turn north between hills. 3.0

Turn northwest, passing between hills; cultivation and woods. 3.2

Trail joins a road. 5.2

La Jagua. (From La Jagua to Cuatro Caminos *see* Viñales-Ceja Ana de Luna-Cuatro Caminos-Tienda San Pedro-Esperanza road from 8-mile point to 11.7-mile point. 6.0

Cuatro Caminos.—Turn north from Cuatro Caminos and reach Berracos. 9.7

Berracos. Situated at foot of low hills 0.5 mile from coast. 11.0

Cross Arroyo Berracos; small stream. 11.3

Cross Arroyo Asiento Viejo, small stream, sandy crossing. Road here turns northeast. Country low, flat, and muddy after rains. Carts go from here to Río Blanco. 12.0

Turn southeast to tienda Guayacán. A road south to La Palma. 12.7

Road south to La Palma. 14.0

Cross Río Blanco; ford 20 feet wide, 12 inches deep; bottom sandy; crossing good; impassable after heavy rains. Pass through rolling country to tienda Río Blanco. 15.0

ROAD No. 40.

BAILÉN—SÁBALO—PIEDRAS—CORTÉZ.

General direction: From Bailén to Sábalo, NW.; from Sábalo to Cortéz, S. Distance: 20.2 miles.

IN GENERAL.

1. Bailén to Sábalo.—A good dirt road running through level and slightly wooded country. During the dry season this road is practicable for all kinds of transportation, but during the rainy season, owing to the lowness of surrounding country, it would be impassable.

2. Sábalo to Cortéz.—Road passes for most of its distance through sandy level country, covered with scrub pine trees. Country very sparsely settled.

IN DETAIL.

Miles from Bailén.	Bailén.
4.2	Crosses track of Western Railway.
4.7	Road joins the Sábalo-San Juan road 0.5 mile east of Sábalo.
5.2	Sábalo. Road leaves Sábalo Guane.
6.7	Crosses Arroyo Naranjo, 1.5 miles from Sábalo running in a southwesterly direction and crossing two small arroyos, Arroyo de las Enamoradas and Arroyo Los Guayacanes.
8.0	Crosses railroad track.
8.2	Crosses Río del Valle.
9.2	Turns to the south and from hereon swings gradually to the southeast to Piedras.
11.2	Large marshy lagoon to left of road, Laguna del Sábalo.
15.2	Reaches settlement of Piedras extending along this road for 2 miles on both sides of the Cuyaguaje River, which is crossed by ferry at this point. Ferry consists of two boats, one capable of transporting two horses; the other, 12 horses with men. Rope stretched across river used in propelling boats. Cuyaguaje River is 100 yards wide at this point, swift current, deep, no ford.
16.5	Small lagoon on right of road.
20.2	Cortéz.

ROAD No. 41.

GUANE—LA CANA.

General direction: NW. Distance: 15.1 miles.

IN GENERAL.

A wagon road into the hills to within 1 mile of Los Ocujes. A cart road from there for several miles to where it becomes a trail into La Cana. Land is cultivated near Guane and in the La Cana valley. Good camping place near Guane. Practicable in part for wagons, but as a whole practicable for pack animals only.

IN DETAIL.

Road leaves Guane at the western end of its principal street and runs due west, passing the cemetery on the left. This is also the main road to Mántua.	Miles from Guane.
Road runs northwest. Branches north to the Guane-Cafetal road. Road branches west to a place near Juan Gómez named La Cana. Cart road branches west and southwest to Juan Gómez.	1.6
Crosses a wagon road running east and west (a connecting road).	1.9
Road branches east to a farm. Road gradually ascends 150 feet.	2.8
Road branches east to an arroyo.	3.4
Crosses a 100-foot hill.	3.7
Road branches east to three houses. Road branches north (short cut to main road). Cart road branches southwest to the Juan Gómez district.	4.0
Cart road branches west to a house. Cart road and trail branches southwest to Juan Gómez.	4.2
Road joins from east (short cut).	5.3
Road turns west. Road branches northeast to Pimi-enta. Trail branches southwest.	6.1
Cart road branches north to Los Ocujes (0.8 mile). Road becomes a cart road.	7.6
Road branches south to Juan Gómez. Road turns northwest.	7.8
Trail branches east to Los Ocujes. Trail descends 100 feet, crosses and recrosses a small stream (branch of Río Frío) and reascends 150 feet. Stream makes a turn and flows northeast.	10.0
Cart road to Los Acostas branches northeast.	10.4
Cart road to Montezuelo branches southwest. Cart road to Juan Gómez branches southeast. Cart road now becomes a trail running northwest over the hills.	10.6
Trail descends 200 feet to Río Mántua and La Cana. Río Mántua: 30 feet wide, 2.5 feet deep, 4-mile current, flows southwest, fluctuation marks 6 feet, spread 40 feet, fordable; approaches easy and bottom gravel. La Cana: A small district consisting of six houses. Trail runs northeast to Cafetal. Cart road runs southwest to Naranjal. Cart road runs west to main road to Mántua.	14.9; 15.1

ROAD No. 42.**GUANE—RÍO FRÍO—CAFETAL—SANTA ANA.**

General direction: From Guane to Cafetal, NW.; from Cafetal to Santa Ana, W. Distance: 17.7 miles.

IN GENERAL.

1. Guane to Cafetal.—Commences as a wagon road running to the hills. The road running over the hills is part cart road and part trail. Most of the distance is a trail. Land is cultivated around Guane and Cafetal. Good camp sites near Guane and Cafetal. Hills are covered with a scanty growth of pine trees and grass.

2. Cafetal to Santa Ana.—A fair wagon road running west across the western hills. No houses. No cultivation. Pine hills. Road has a number of steep grades and hard climbs. Practicable for 6-mule wagons with light load. No camping sites.

IN DETAIL.

Miles from
Guane.

The road leaves Guane two blocks east of the church and runs in a general northern direction through cultivated land.

- 0.3 Wagon road branches east and runs up valley.
- 0.6 Wagon road branches northeast and runs up valley. Road turns northwest.
- 0.9 Wagon road branches west running through lowland and rejoins road at 2.7 miles.
- 1.5 Wagon road branches northeast. Trail branches west to road branching at 0.9. Brickyard right of the road. Road gradually ascends 150 feet.
- 2.7 Two wagon roads join from the southwest. One runs due south through lowlands for 2.4 miles and joins the Guane-Mántua road 1.5 miles from Guane. The other is the road which left at 0.9. Road becomes a cart road running northwest.
- 3.3 Road crosses a 100-foot hill (steep and narrow).
- 3.6 Up to this point the road has been running parallel to the Río Cuyaguatije, southwest of it and about 0.5 mile from it. At this point the river comes from the north and the road continues northwest along the Río Frío system (principal branch of the Cuyaguatije River).
- 3.8 Road divided into two trails (one trail running north crosses the Río Frío and ascends the high hills on the opposite side and runs to a house 1.1, thence north and northeast over the hills 0.4 mile). At this point a cart

Miles from
Guane.

road runs east, crosses the river and joins the road to Portales (Guane-Los Portales road via hills). From the same point a trail branches to the hills in the north-east. The trail continues in a northern direction for about 1 mile where it divides into two trails, one running north, the other west and southwest. The one running north runs for about 7 miles to the Los Acostas-Asiento Viejo road. The other trail runs west and southwest for 1.3 miles to where it crosses the Río Frío, thence 1.1 miles to where it rejoins the Guane-Cafetal trail. The Guane-Cafetal trail runs northwest.

At this point it becomes a wagon road running in a northwesterly direction (branch of the Guane-La Cana road) to Pimienta. Río Frío is a large district with only two houses. It is heavily wooded and is the source of the Río Frío. From this place the road runs nearly due north.

Wagon road runs 0.5 mile west to where it joins the Guane-La Cana road. Guane-Cafetal trail continues northwest. Trail joins from northeast.

Trail descends 100 feet; crosses small creek flowing northeast (branch of the Río Frío) and reascends 100 feet.

It again descends 100 feet, crossing another small branch of the Río Frío which flows north.

Los Ocujes.—A trail runs south for about 0.8 mile to Guane-La Cana road. Trail runs north to Asiento Viejo. Trail to Cafetal runs nearly due west.

Trail branches to the southwest and runs to the Guane-La Cana road. Main trail turns due west.

Turns to the northwest. Descends 100 feet and crosses a small creek flowing north and then ascends 200 feet.

Trail here crosses the Montezuelo-Los Acostas cart road.

Runs around a 150-foot hill. Ascends 200 feet to the top of a long ridge.

Descends 400 feet to La Lima, Cafetal, Caracoles, and the Río Mántua. The district east of the river, between the river and the mountain or high hill, is named La Lima. There are two districts west of the river, between the river and the western hills, named Caracoles and Cafetal. Caracoles consists of a number of scattered houses and is south of Cafetal. Cafetal is a large tobacco district consisting of many scattered houses. It has

Miles from
Guane.

telephone connection with La Jagua, Pinar Oscuro, and Dimas, on the coast. The telephone line is a private line. Río Mántua: Width, 30 feet; depth, 3 feet; current, about 4 miles; fluctuation marks, 10 feet; fordable; approaches easy and bottom is gravel. A small cable with a flat-bottomed boat (capacity 4 persons) is used in the rainy season. Good camp site for a squadron. Good water, grass, with fuel in the hills. Roads from Cafetal: Wagon road runs north to Cabezas de Horacio; wagon road west to Santa Ana; cart road northeast to La Jagua; cart road and trail southwest to La Cana. Leaving Cafetal it ascends the western hills 100 feet and runs west.

- 14.8 Crosses a small creek flowing south (Arroyo Ciego de Auras).
- 16.4 Crosses the Mántua-Cabezas de Horacio road, which runs north and south.
- 17.4 Cart road branches southwest to Mántua-Cabezas de Horacio road.
- 17.7 Santa Ana.—Five scattered houses and as many cultivated patches. Wagon road runs west to Santa Isabel. Wagon road runs north to La Ceja.

ROAD No. 43.

PINAR DEL RÍO—CANGRE—CERRO DE CABRAS—CABEZAS DE MONTIEL.

General direction: NW. Distance: 16 miles.

NOTE.—During 1908 a metaled road was under construction connecting Pinar del Río and Cabezas. On September 30, 1908, it was half completed.

IN GENERAL.

The road is practicable for bull-cart transportation all the year. Not practicable for army wagon transportation until extensive repairs are made. No difficult grades are encountered until the foothills about 2 miles beyond schoolhouse at Cangre are reached. The road at points about 500 yards on each side of said schoolhouse is bad, having very deep mud holes.

For 1.5 miles on each side of Cerro, marked by a bodega, heavy grades are encountered which would necessitate doubling up of teams.

Bridges.—The only bridge on road is over the Río Cuyaguaje. It is iron and in good condition, about 100 feet long. It is about 0.2 mile east of Cabezas.

This river becomes impassable during heavy rains. The banks are steep and the current swift, and it would be dangerous to swim horses over it. In general the rise due to rains does not last for more than a few hours.

No telegraphic or telephonic communication.

ROAD No. 44.

ROBLAR DE GUANIGUANICO—JUAN GÓMEZ—GUANE—LA CANA ROAD.

General direction: N. Distance: 17.7 miles.

IN GENERAL.

1. From Roblar to Juan Gómez is a wagon road running through grassy savanna country and several small fincas.

2. Juan Gómez to the Guane—La Cana road.—A fair cart road from Juan Gómez running nearly due north into the hills where it joins the Guane—La Cana road. Has a number of steep grades. Practicable for cart and pack animals. Hills covered with a scanty growth of pine trees and grass. No cultivation and no houses through hills. No camping sites.

IN DETAIL.

	Miles from Roblar.
Roblar de Guaniguanico; a small farming district.	
Cross Arroyo Cuajani; dry bed, and sandy.	1.0
Cross roads; north to Hato Guane—Guayabo road; south to Roblar—Guadiana road.	2.0
Road turns.	4.0
Road to west to Guayabo and Las Cruces.	5.0
Hato Viejo de Guane, a farming district; one small tienda. Road to Roblar leaves Hato Guane to south-west.	5.5
The main Hato Guane—Guadiana road.	5.7
Pass lowland along the Salado River; cross Salado River, ford good, bottom sandy, 10 feet wide, 6 inches deep, banks 4 feet high.	6.3
La Pimienta. Road to south to Guadiana via Vizcaino.	6.8
Creek, 6 feet wide and 0.5 foot deep, good ford.	7.0
Road to San Julián to right.	8.6
Creek, muddy crossing.	10.6
San Ramón to left; four vegas.	10.8
Road to Montaña, south of west.	11.0

- Miles from
Roblar.
- Small creek. Juan Gómez: Starting at the tienda in
- 11.8 Juan Gómez, the road runs north to the hills, passing through cultivated land and by scattered houses.
- 11.8 Ascends 100 feet into hills.
- 12.5 Descends 50 feet, crossing a small creek flowing east, and reascends 100 feet.
- 14.0 Descends 100 feet, crossing a small creek flowing east, and reascends 150 feet.
- 14.7 Wagon road branches southeast to Guane. Wagon road branches north to the Guane-La Cana road. Road turns a little west of north.
- 15.6 Ascends 100 feet and runs along ridge.
- 17.7 Joins the Guane-La Cana road. Trail runs northwest to La Cana. Cart road runs southeast to Guane, and southwest to Montezuelo.

ROAD No. 45.

CANDELARIA—SABANALAMAR.

General direction: S. Distance: 11 miles.

IN GENERAL.

A cart road, passable in dry season.

Miles from
Candelaria.

IN DETAIL.

- 1.0 Turns southeast.
- 2.0 Dirt road from the Calzada connects with it. Road runs south.
- 3.1 Road dwindles into a trail. This trail continues southeast over wooded and grassy country.
- 4.6 A dirt cart road runs off to the northeast 3 miles, where it connects with the road running from Pueblo Nuevo to Embarcadero de Corojal. Trail runs south.
- 6.6 Road branches off northeast. (This road continues northeast for about 4.5 miles where it connects with dirt road running from Pueblo Nuevo south to Embarcadero de Corojal at the point where the road mentioned above connects with it.)
- 7.1 Finca of Puerto Rico. (Here another dirt road runs off northeast for 2 miles to finca Boyero and connects with road just mentioned 0.5 mile north.) There is a trail running south from Puerto Rico 1 mile to finca Crimea, 0.2 mile beyond, another trail joins it from El

Corojal. From this junction trail continues southwest to where it joins the main trail a mile north of finca Jejenes. Trail runs southwest, crosses the Río Jejenes at finca Puerto Jejenes (river 15 feet wide, 2 feet deep, sandy bottom, banks 15 feet high and cut to ford, which is very good in the dry season, but impassable in the rainy season). From this point a trail runs southwest for 2 miles, crosses the Domingo River at finca Rincón Hondo and connects with trail to Sabanalamar, river 20 feet wide, 3 feet deep, muddy bottom, high banks, ford very difficult, impassable in the rainy season. Trail from Puerto Jejenes continues south on west bank of Río Jejenes.

Miles from
Candelaria.

Crosses to east bank, river 20 feet wide, 1 foot deep, gravel bottom, bank cut to ford, impassable in the rainy season. 9.0

Finca Jejenes which is located 2.5 miles from the coast and separated from it by a wide swamp. There is a trail running southwest from Jejenes to Sabanalamar; also one northeast to El Corojal. 11.0

ROAD No. 46.

ESPERANZA—TIENDA SAN PEDRO (EL ROSARIO)—CUATRO CAMINOS—BERRACOS—RÍO BLANCO.

General direction: E. Distance: 12.6 miles.

IN GENERAL.

A cart road passing farming district of El Rosario to El Rosario River crossing; thence trail passing through rolling country under cultivation to Berracos; thence cart road running due east along coast.

IN DETAIL.

Leaves southern end of Esperanza and turns southeast, then east passing brickyard.

Miles from
Esperanza.

Turns a little north of east to tienda of San Pedro (El Rosario). Passable for wagons; roadbed sand and clay. Whole district under cultivation. 0.8

Nearly due east through farming district of El Rosario. No grades of importance. Roadbed sandy clay. Passable for wagons. Gradually ascends ridge. 2.0

Miles from
Esperanza.

- Cart road running south to El Rosario River. Descends ridge 15° slope. Trail running east to farmhouse. Below ridge roadbed soft loamy soil.
- 3.6
- 4.0 Crosses El Rosario River. Bridge of wood, 40 by 16 feet, about 6 feet above stream. In good repair. Turns east along river through low pasture. River 20 feet wide, 12 inches deep, bottom sand and mud. Road to south to La Mina and San Cayetano.
- 5.2 Trail to south to La Mina, La Jagua, and La Palma. Leaves main trail near small group of houses; runs to top of ridge on right along wire fence.
- 5.8 Passes through gate and enters pasture. Trail to south passing house on top of hill to La Jagua, joining La Jagua-Berracos road. Crosses river La Jagua a few hundred yards beyond gate. Crossing bad, banks 8 feet high and steep, bottom muddy; impassable after heavy rain. From this point the road ascends a ridge and follows it. Roadbed firm clay and sand. Good camping place at river; grass in abundance.
- 6.8 Cuatro Caminos; crossroads. Road to Berracos turns north. Road to east to La Palma and Río Blanco. Berracos road passes through cultivated district to Berracos. Cart road from here.
- 8.0 Berracos. Situated at foot of line of low hills about 0.5 mile from the coast.
- 8.3 Crosses Arroyo Berracos, a very small stream, but furnishing constant supply of water. Crossing sandy.
- 9.0 Crosses Arroyo Asiento Viejo, small stream, sandy crossing. Direction of road northeast. Country low and flat. Muddy after rains. Cart road from here to the coast of Río Blanco.
- 9.7 Turns southeast to tienda Guayacan. Road to south to La Palma.
- 10.5 Tienda Guayacan. Road runs due east through low flat land. Brush on north and hills on south.
- 11.7 Road to south to La Palma.
- 12.6 Crosses Río Blanco; ford; 20 feet; 18 inches deep; bottom sandy; crossing good; impassable after heavy rains. Road continues through rolling country to tienda of Río Blanco.

ROAD No. 47.

PAN DE AZÚCAR—ABRA—SAN VICENTE.

General direction: From Pan de Azúcar to Abra, N.; Abra to San Vicente, E.
Distance: 10.8 miles.

IN GENERAL.

1. From Pan Azúcar to Abra is a trail running northeast. It passes through the center of the region of Pan de Azúcar and crosses two rivers. Enters hills beyond the second river crossing, thence 2 miles through hills, grades steep and difficult. Descending from the hills the trail runs through the cultivated district of Abra for 3 miles. This district is very narrow, only a few hundred yards in width, bounded on the north by the sierras and on the south by high hills. The trail crosses a number of small streams, but they are unimportant.

2. Abra to San Vicente. A cart road running almost due east along the base of the Sierra del Ancon to San Vicente. Arroyo Guaguasí on the south of road and hills on the north. The valley is under cultivation, and is about 0.5 mile wide.

IN DETAIL.

White house at Pan de Azúcar; trail passes through yard. This is the center of the Pan de Azúcar district. Miles from Pan de Azúcar.

Crosses the Pan de Azúcar River. Banks 3 feet high, current moderate, depth 12 inches, width 15 feet; impassable during high water. 1.3

Passes small settlement and crosses river. Banks 5 feet, depth 14 inches, sand and rock bottom. The trail, which has followed the north side of sierra, here turns due north and ascends a low ridge, where it joins the trail to Corralillo and turns northeast, following ridge line. 3.3

Crosses deep ravine; grades difficult. 4.5

Trail northwest to Corralillo and Malas Aguas. The trail turns southeast and ascends high hill, grade 25°. 4.8

Turns northeast. Trail to northwest to Corralillo, leaving at point of sierra. Here the trail descends to Abra district and follows along the base of sierra to gap of Abra River where tienda Abra is situated. 5.7

Abra. Leaves Abra tienda and goes north, crossing the Morales River and Arroyo Guaguasí over bridges. Condition of bridges good. That over river 90 feet long and 16 feet wide; that over arroyo 20 feet long, 16 feet wide. Both bridges wood. Camp site here. 6.0

Miles from Pan
de Azúcar.

- Turns more to the east. A cart road north to San Cayetano.
- 6.3 Cayetano.
- 7.0 Crosses log bridge over small stream flowing south. Ascends grade 10°. Hills to north covered with pine.
- 7.3 Cart road joins from the northwest.
- 8.3 Passes tienda on south of road. Trail enters from the northwest. Cultivation and settlement.
- 9.3 Cart road joins from the northwest from a sawmill.
- 10.8 San Vicente

ROAD No. 48.

SAN FELIPE—SANTO TOMÁS—LA JAGUA (ISABEL MARÍA VALLEY)—SUMIDERO.

General direction: San Felipe to Santo Tomás, W.; Santo Tomás to Sumidero, S.
Distance: 13.5 miles.

IN GENERAL.

1. San Felipe to Santo Tomás.—Cart road. Roadbed sand and clay; no steep grades, but road rough and badly cut up. Passes through valley of west branch of San José River.
2. Santo Tomás to La Jagua.—Trail through hills covered with thin growth of pine, grades steep, bed of trail clay and sand.
3. From La Jagua to Sumidero is a road suitable for wagons in dry season, for pack animals during rainy season.

IN DETAIL.

Miles from San
Felipe.

- Crosses stream, Arroyo de los Cayos, crossing difficult, bottom sandy, banks 10 feet high and badly washed out. Depth of stream 4 to 6 inches, width 6 feet.
- 0.3 bottom sandy, banks 10 feet high and badly washed out. Depth of stream 4 to 6 inches, width 6 feet.
- 1.5 Road to south to tienda La Jagua (Isabel María valley) and Guamá.
- 2.5 Crosses Arroyo de los Cayos; crossing similar to that described above.
- 3.0 Road to south to tienda La Jagua (Isabel María valley) and Guamá.
- 3.5 Top of ridge, road descends to tienda of Santo Tomás, grade 15°, road good.
- 3.7 Crosses small stream, sluggish and muddy. Banks 3 feet high, depth of water 2 feet.
- 4.0 Santo Tomás. Roads to La Jagua, Peña Blanca, Gramales, and Viñales. From western tienda Santo Tomás trail ascends ridge east of Mogote, grade 115°.
- 5.5 Trail divides, both trails rejoining 2 miles to the south. Main trail to the east.

Crosses stream. Bottom sandy, banks 3 feet high, current sluggish. Depth 2 to 3 inches, except in water holes, which are deep. Miles from San Felipe. 7.0

Crosses Isabel María River. Crossing good, current moderate, banks 4 feet high. Depth 3 to 6 inches; width, 4 feet. 7.4

Tienda La Jagua, Isabel María valley. This valley is surrounded by hills from 200 to 350 feet high. All through this district the hills are covered with a light growth of pine. The hills afford no grazing for cattle. The land is rich and a greater part under cultivation. Leaves La Jagua, crosses Río Cuyaguatete, which crosses the road. This stream and the Isabel María are the only important streams in this section. The road is suitable for wagons during the dry season and for pack animals during rains. 8.0

Sumidero. 13.5

ROAD No. 49.

PINAR DEL RÍO—MARCOS VÁZQUEZ.

General direction: E. Distance: 11 miles.

IN GENERAL.

A fairly good dirt road in dry season, but rough in places. Practicable for bull carts and lightly loaded wagons; impassable for army wagons in the rainy season.

IN DETAIL.

Leaves Pinar del Río from northeast corner of town, running in northerly direction. Miles from Pinar del Río.

Crosses Guamá River over wooden bridge, 75 feet long, 20 feet high, in poor condition. There is a ford 75 yards east of bridge, gently sloping banks, gravel bottom; river in dry season 30 feet wide, 3 feet deep. About 200 yards farther on there is a tienda at which the road forks, the northern fork going to Viñales, Paso Viejo, San José; the eastern branch to Las Ovas and Marcos Vázquez. 0.2

Crosses small stream flowing from tannery on left of road. Road gently rising. 0.5

Reaches top of small ridge; commanding position. From this point road descending. 1.5

Crosses small stream and immediately afterwards the railroad, 200 yards west of kilometer 173. Road ascending; country gently rolling. 2.0

Miles from Pinar
del Río.

- Reaches top of ridge. From this point on country generally flat, but broken up by arroyos and small lagoons.
- 2.2 Road to left front to Las Ovas. Practically no cultivation on either side of road.
- 3.5 Crosses small stream. Large lagoons can be seen on either side of road about a mile distant.
- 5.0 Cross roads—to right to Coloma; to left connects with Las Ovas—Marcos Vázquez road.
- 6.5 Small swampy lagoon to left. Road gently rising.
- 8.0 Joins Las Ovas—Marcos Vázquez road, descending; country to left generally under tobacco cultivation.
- 10.0 Marcos Vázquez. Roads east to San Lorenzo, north to Puerta de Golpe.
- 11.0

ROAD No. 50.

BRIDGE ON GUANE—LOS ACOSTAS ROAD—LOS PORTALES (VIA HILLS)—TO LOS ACOSTAS—ASIENTO VIEJO ROAD.

General direction: N. Distance: 17 miles.

IN GENERAL.

1. From bridge on Guane—Los Acostas road to Los Portales. A good wagon road running over the highest ridge of hills east of the Cuyaguaje River (between the river and the Guane—Los Acostas road). Hills covered with scrub pines and grass. Few houses and little cultivation. Grades heavy but gradual. Road probably used in rainy season only. Practicable for all kinds of transportation. No camp sites.

2. Los Portales to the Los Acostas.—Asiento Viejo road. A trail running over hills. Steep and difficult in many places. Through cultivated land for a mile out of Los Portales and thence over hills covered with a scanty growth of pine trees and grass, to where it joins the Los Acostas—Asiento Viejo road. No camp sites. Practicable for pack animals only.

IN DETAIL.

Miles from
Guane Bridge.

- Leaves the steel bridge on the Guane—Los Acostas wagon road and runs northwest.
- 0.2 Wagon road branches east, back to the Guane—Los Acostas road. Road now continues up a ridge parallel to the Río Cuyaguaje and about 0.4 mile from it. Small cultivated patches and a few houses on river banks over brow of the hill. Ascends 150 feet.
- 1.0 Houses on left. Trail branches north to house on right. Road ascends 100 feet.
- 1.6 Road turns northeast and runs on top of ridge.

Cart road branches east of hills and one west to a house on the river. Road now runs in a general north-east direction. The river runs southwest parallel to the road and about 0.7 of a mile west of it. Miles from Guane Bridge.
2.0

Wagon road branches southeast to a group of four houses and then joins the Guane-Los Acostas road by means of a trail from the houses. Trail west to a house on the river. 2.7

Wagon road branches west and runs for 0.3 mile to a house. Here a trail branches northwest to a house. Road then turns west to another house. From this house a cart road branches to the west and northwest and, crossing the river, runs to the Río Frío district. 3.8

Road turns southeast and descends 150 feet. 4.0

Runs through cultivated land into Los Portales. Joins the Guane-Los Acostas road near house known as Portales. Leaving Los Portales it runs west and northwest for 0.7 mile through cultivated land. 5.3

Ascends 100 feet and runs along the side of a hill. 6.3

Ascends 50 feet to the top of the hill. 6.9

Descends gradually 250 feet to Río Cuyaguaje. Río Cuyaguaje flows southwest, 20 feet wide, 2 feet deep, current, 4 miles; fluctuation marks, 8 feet; fordable, approaches steep and difficult; bottom rocky. 7.9

Ascends hills west of the river 150 feet. Turns north and runs on the ridge of hills just west of the river. Trail joins from west (Río Frío district). 8.8

Ascends 50 feet. 9.7

Ascends 50 feet. 10.9

Trail joins from southwest (Río Frío district). 12.2

Turns due east. Descends 200 feet and crosses a small creek flowing south (branch of the Río Cuyaguaje). Ascends 100 feet. Here a trail branches southeast across the hills to Punta de la Sierra. 12.9

Turns northwest and descends 100 feet; crosses creek and ascends 200 feet. 13.7

Turns north and gradually descends 150 feet. Crosses former creek, which now flows southeast, and reascends 100 feet. 14.8

Ascends 100 feet, slope gradual. 16.5

Ascends 50 feet and joins Los Acostas-Asiento Viejo road, 3.7 miles from Los Acostas and 3.1 miles from Asiento Viejo. 17.0

ROAD No. 51.**CAYAJABOS—ARTEMISA.**

General direction: SE. Distance: 9 miles.

IN GENERAL.

This road has only recently been completed. It is metaled, high, well drained and wide enough for two wagons. It runs straight into Artemisa, crossing a branch of Río Cayajabos and Río Limones.

ROAD No. 52.**MONTEZUELO—NARANJAL.**

General direction: N. Distance: 5.4 miles.

IN GENERAL.

Part wagon and part cart road running through the Montezuelo valley and thence across a ridge of hills into Naranjal. Montezuelo and Naranjal valleys are cultivated and contain many scattered houses. Practicable for carts and pack animals. Range of hills is covered with pine woods and grass. Good camping site for a squadron at Montezuelo and at Naranjal.

IN DETAIL.

Miles from
Montezuelo.

- Leaving the Montezuelo tienda the road runs on the Guane-Mántua road (telegraph line on the road) in a northwest direction for 1.2 miles.
- 1.2 As a wagon road it branches to the north while the Guane-Mántua road continues northwest to Mántua. Road passes through cultivated land. Two houses on right and one on left of the road.
- 2.2 Descends 100 feet, crosses a small stream flowing southwest, and reascends 100 feet.
- 2.3 Becomes a cart road.
- 3.4 Descends 100 feet and crosses a small creek flowing southeast (branch of the Río Mántua). Then ascends 200 feet to the top of the range of hills. House on the north bank of the creek on the right of the road.
- 4.9 Descends 100 feet and joins the Mántua-Naranjal cart road in a stretch of pasture land.
- 5.4 Runs northeast on this road for 0.5 mile into Naranjal.

ROAD No. 53.
SANTA ISABEL—SANTA MARÍA—LOS ARROYOS.

General direction: W. Distance: 8.8 miles.

IN GENERAL.

A good hard dirt and gravel road. Practicable for all arms, pack and wheel transportation. Wagons with ordinary loads would encounter no difficulties and could follow the roadway its entire length. There are no difficult grades at any point and the road can be easily kept in repair.

IN DETAIL.

Leaves the large tienda and schoolhouse of Santa Isabel and running in a northwesterly direction follows the Embarcadero de Santa Isabel road to the first farmhouse. Miles from
Santa Isabel.

At this point it branches off to the left and, running 1.0 almost due west, follows the base of the ridge, which commands both roads for some distance, ascends an easy grade, turns southwest, passes through a gate and dipping slightly passes through another gate, at which point it crosses a road running from the tienda of Santa María to Embarcadero de Santa María.

Descending by an easy grade, the road from here on 3.0 passes through a cultivated (tobacco) area, called Santa María. Thickly settled.

The road passes by the door of the schoolhouse of 3.8 Santa María and crosses the Río Buena Vista. This is a stream of good clear water 20 feet by 6 inches in dry season, has a good ford with sandy bottom, and would afford an excellent halting place. A camp for a squadron could be established here.

From this point on there is neither cultivation nor 5.0 houses. The road descends an easy grade and passes over an even stretch of country, diverging slightly west.

The road turns south. 5.4

Crosses a trail at right angles; turns southwest. 5.7

A small road ties in from the right. 6.0

A road from the Embarcadero Santa María from the 6.1 north.

The road crosses a shallow stream of water (clear) 6.4 with a good ford, called Arroyo Los Ciegos, turns and runs almost due west.

Miles from
Santa Isabel.

Passes through a gate and also through a little swamp
6.6 of no importance.

8.8 Passes a brickyard and ties in a right angle at the south end of Los Arroyos with a street running north and south through the town and which is a continuance of the Mántua-Los Arroyos road.

ROAD No. 54.

NARANJO—ASIENTO VIEJO.

General direction: SE. Distance: 2.7 miles.

IN GENERAL.

Originally a cart road; now a trail. In many places it is steep and difficult as it crosses the high hills. Hills are covered with a heavy growth of good pine and grass. No houses, no cultivation, and no camp sites. Telephone line runs along the trail.

IN DETAIL.

Miles from
Naranjo.

Starting at Naranjo, the road ascends 200 feet and crosses a high hill.

1.4 Descends 200 feet, crossing a small creek which flows south. Road reascends 150 feet and continues over hills.

1.7 Descends 150 feet and crosses a small creek flowing south and then reascends 200 feet and continues southeast.

2.5 Descends 200 feet and crosses a small creek flowing southwest and reascends 100 feet.

2.7 Runs into Asiento Viejo from the west near the telephone house. Wagon road branches north to Manaja (telephone line runs along this road). Cart road branches east to Los Acostas. Trail branches northeast to the Pesquero-Manaja trail. Trail branches southwest to Los Ocujes. Río Mántua flows through Asiento Viejo and continues in a southwest direction.

ROAD No. 55.
GUAMÁ—SANTO TOMÁS.

General direction: NW. Distance: 8.5 miles.

IN GENERAL.

A ridge trail passing through uncultivated land; hilly, and country covered with scrub pine and thin underbrush. Roadbed firm clay and sand.

IN DETAIL.

 Miles from
Guamá.

Reaches top of ridge which it follows in a northwesterly direction. **8.0**

Trail northeast connecting with Guamá-San Felipe trail running along ridge to the east. **2.0**

Trail to northeast connecting same trail on ridge to east. **2.8**

Turns north. Trail to south to tienda La Jagua, Isabel María valley. **4.1**

Enters trail crossing it at right angles to east to San Felipe along ridge line. At 1 mile distance crosses road running southeast to Guamá along ridge. From this point it is about 1.5 miles to San Felipe. Turns to west along ridge. **5.5**

Turns northwest. Light growth of pines. **6.0**

Turns northeast. Light growth of pines. **6.3**

At this point there are two trails to main road to San Felipe-Santo Tomás. Road to the left shorter but crosses three streams having steep banks and rough crossings; currents good, good clear water and good camping place. No grass.

Enters main road San Felipe-Santo Tomás. At point 6.3 miles road to the east runs along ridge into San Felipe-Santo Tomás road avoiding stream crossing. Would be passable for carts. At point 4.1 miles trail running south to tienda La Jagua, Isabel María valley, crosses Guamá River 1 mile from said point. Crossing rocky, with steep rocky banks; stream about 8 inches deep; banks 4 feet high; current moderate. Impassable for carts or vehicles of any kind. To this point trail is very hilly and difficult to follow. From here trail runs generally southwest over a high, steep grade to point 1 mile northeast of tienda La Jagua where it enters main cart road from the north, which at this point turns west to said tienda. **7.5**

ROAD No. 56.**PILOTOS—CONSOLACIÓN DEL SUR.**

General direction: E. Distance: 8.5 miles.

IN GENERAL.

With the exception of the crossing of the Río Hondo, this good dirt road would be passable in all seasons. Country traversed by road thickly wooded near Pilotos, more open near Consolación del Sur. Sparsely settled throughout.

IN DETAIL.

- | | |
|------------------------|---|
| Miles from
Pilotos. | Leaves Pilotos running in an easterly direction. |
| 1.0 | Swings to the southeast, gradually turning to the east again. |
| 2.5 | Swamp on the left and two lagoons, one on each side of the road. |
| 3.0 | Tienda on right of road and change of direction to the north. |
| 4.0 | Road descends into the valley of the Río Hondo, a small stream during the dry season, but with a valley 0.7 mile wide at this point. |
| 4.5 | Crosses Río Hondo; no bridge, good ford in dry season, gravel bottom, stream 30 feet wide. During rainy season stream can not be forded at this place. Two tiendas on left of road and surrounding farms make up the settlement of La Leña. |
| 5.5 | Crosses Río La Leña over a small wooden bridge; road turns to the southeast. |
| 7.0 | Two small stone bridges over branches of the Río San Pablo. |
| 8.5 | Enters Consolación del Sur from the west. |

ROAD No. 57.
PASO REAL DE GUANE—SAN JULIÁN—EL LIMÓN.

General direction: SW. Distance: 11 miles.

IN GENERAL.

Wagon road following telegraph line to San Julián through savanna. Brush, scrub palms, and grass. From San Julián to El Limón through savanna.

IN DETAIL.

Leaves Paso Real de Guane to southwest following telegraph line.	Miles from Paso Real.
Road and trail to southwest to Catalina.	0.2
Road to north to Juan Gómez.	0.6
Road to north to Juan Gómez.	1.1
Roads to south and east to Las Martínas and Catalina.	1.4
Road turns west.	
San Julián. Road to northeast and east to Guadiana, Juan Gómez, and Hato Guane; to south to Las Martínas and Catalina.	3.1
Crosses dry bed of stream. Roadbed firm; savanna.	3.8
Turns west. Roads to south and east to Las Martínas and Catalina.	4.5
Crosses Río Verde; dry bed; pines.	5.0
Turns southwest; road to north to Juan Gómez.	5.2
Passes a lagoon; two roads to north to La Pimienta and Juan Gómez. Guadiana River north side of road. savanna—scrub pines and palms.	6.8
Vizcaíno, finca. Road to south to Las Martínas and La Fé.	8.7
El Limón, finca. Road to south to Las Martínas and La Fé.	11.0

ROAD No. 58.**PESQUERO—MANAJA.**

General direction: NW. Distance: 8 miles.

IN GENERAL.

A cart road very steep and rough which finally becomes a trail. Practicable only for pack animals. Country is cultivated in the valley, but the hills are covered with a scanty growth of scrub pines and wire grass. No camp sites.

IN DETAIL

Miles from
Pesquero.

Starting at the tienda Pesquero, the road turns northwest toward the hills.

- 1.3 Road ascends hills 200 feet and then runs due west.
- 2.4 Ascends 50 feet to top of ridge. Trail branches southwest to Asiento Viejo. (This trail starts out as a cart road, but soon becomes a small trail. It is very narrow and can hardly be distinguished. It runs along the most prominent ridge for 3.4 miles, where it crosses the Río Mántua and then runs into Asiento Viejo. Length of trail 5.3 miles.) Road continues northwest.
- 2.8 Trail branches to northeast. (This trail is a small narrow one running over the most prominent ridge for 3.5 miles to the Francisco—Manaja road where it joins the trail across the hills to Gramales. It is a very rough trail throughout.)
- 2.9 Road descends 250 feet and crosses a small creek flowing southwest (branch of Río Mántua). It then ascends 150 feet to the top of a prominent and well defined ridge.
- 3.4 Road turns north and runs on the summit of the ridge over numerous knolls.
- 4.9 Road turns northwest and descends 50 feet.
- 5.3 Road becomes two trails; one running northwest to Manaja, the other running west across the hills to the Asiento Viejo—Manaja road. The trail running west runs for 1.6 miles where it crosses a small creek flowing south (branch of the Río Mántua), thence up and down high hills for 3 miles to where it joins the road. Length of trail 4.6 miles. The place where it joins the road is 3.9 miles distant from Manaja and 6.5 miles distant from Asiento Viejo. Trail to Manaja runs northwest.
- 7.8 Trail descends 100 feet.
- 8.0 Manaja.

ROAD No. 59.

PIMIENTA—LIMÓN.

General direction: S. Distance: 6 miles.

IN GENERAL.

Fair dirt road, in dry season passable by all kinds of transportation; impassable for wheeled transportation in rainy weather.

IN DETAIL.

	Miles from Pimienta.
Crosses creek, 8 feet wide, 0.5 foot deep, good ford.	0.5
Small creek.	5.5
Río Guadiana, 8 feet wide, 0.5 foot deep, good ford.	6.0
Limón. The country passed through is waste savanna land, pines and palms.	

ROAD No. 60.

SAN LUIS—PALIZADAS—SAN FRANCISCO—COLOMA.

General direction: SE. Distance: 8.5 miles.

IN GENERAL.

The Pinar del Río-Coloma calzada is entered about a mile north of Coloma. This road is passable for wagons in dry season.

IN DETAIL.

	Miles from San Luis.
Palizadas; road turns northeast for 2 miles to San Francisco.	5.5 6.0
Crosses the Río Guamá or San Felipe, a small stream with steep banks, about 3 feet rise in freshets. No great obstacle.	7.0
San Francisco.—Road turns to its original direction (10° south of east) and continues practically in a straight line to the Pinar del Río-Coloma calzada.	8.5
Coloma.—Bridges: Wood, 75 feet long, 16 feet wide; 30 feet above water over Río Feo. Rivers: Río Guamá; rise in freshets 10 feet; banks steep and difficult; plenty of palms near by. Río Feo; rise in freshets 10 feet; banks steep and difficult; plenty of palms near by.	

ROAD No. 61.**GUAYABO—HATO GUANE.**

General direction: E. Distance: 5.5 miles.

IN GENERAL.

This is a fair dirt road, passable for all kinds of transportation in the dry season, none but pack animals in rainy season.

IN DETAIL.

Miles from
Guayabo.

- 0.5 Dry bed of stream which in rainy season would be difficult to cross owing to steepness of banks. Road to
- 2.0 Roblar branches off to south.
- 3.0 Two dry beds of streams. Four vegas to left.
- 4.5 Small creek. Barrio of El Ajis to left, 5 vegas.
Scattered vegas begin at this point and reach to Hato
- 5.5 Guane.

Hato Guane. The country passed through is waste savanna land, except where noted. No camping places.

ROAD No. 62.**PINAR DEL RÍO—RÍO FEO—GUAYABO.**

General direction: From Pinar del Río to Río Feo, SW.; from Río Feo to Guayabo, NW. Distance: 10.4 miles.

IN GENERAL.

1. Pinar del Río to Río Feo.—Dirt road over rolling country, passable for all classes of transportation in dry season.

2. Río Feo to Guayabo.—A good dirt road running through hilly, wooded, cultivated country. Impassable for wagon transportation in wet weather.

IN DETAIL.

Miles from Pinar
del Río.

- Leaves Pinar del Río in a southwest direction near the old cemetery.
- 0.2 Crosses Arroyo Galinao.
- 0.3 Brick yard to the right.
- 1.0 Tienda on the right.
- 2.2 Tienda on the right.
- 2.5 Schoolhouse on the left.
- 2.7 Crosses small arroyo. Gradually bends more to the south.
- 4.7 Passes tienda of Río Sequito.

Joins Guayabo-Río Feo road, 0.9 of a mile from Río Feo.	Miles from Pinar del Río. 5.6
Leaves north tienda of Río Feo in a northwest direction, bends to the north and crosses small arroyo.	6.4
Branch road northeast to Pinar del Río.	6.5
Crosses Arroyo Montero, boggy, muddy crossing.	6.6
Tienda to the left.	8.4
Tienda to the right.	8.9
Turns to the northeast and crosses Arroyo Montero.	9.2
Passes through settlement of Vista Hermosa.	
Bends northwest and passes schoolhouse on the left.	
A number of unimportant connecting roads and trails.	
Guayabo.	10.4

ROAD No. 63.

TRAIL FROM GRAMALES-BAJA ROAD, AT A POINT 7 MILES FROM GRAMALES, TO BAJA.

General direction: W. Distance: 17 miles.

IN GENERAL.

Trail practicable only for pack transportation. In places very rough, especially at crossing of Baja River. None of the country through which trail passes is under cultivation, and all is covered with growth of pine and coarse grass.

IN DETAIL.

	Miles from Gramales.
Trail runs to southwest.	7.0
Crosses source of Baja River. Crossing rough.	8.5
Due west for 1.5 miles.	9.5
Trail to Dimas turns off in southwesterly direction, passing through irregular hills.	11.0
Trail to Dimas turns off in southwesterly direction and joins Dimas trail about a mile distant from point of branching. From junction of these Dimas trails a cart road extends to San Ramón, joining Baja-Dimas wagon road at this point.	12.0
Trail turns due west through rolling country and pine growth. Trail runs almost due north to Baja, crossing four small streams which form Arroyo Zarzal.	13.5
Baja.	17.0

ROAD No. 64.**PILOTOS—SABANETON.**

General direction: NE. Distance: 18 miles.

IN GENERAL.

A wagon road from Pilotos to Río Hondo and Lajas.

IN DETAIL.

Miles from Pilotos.	
	Leave church in Pilotos. Road to left to Piñalillo.
	Road straight ahead to Consolación.
0.2	Road turns off sharply to left along eastern end of Plaza.
0.4	Road turns to right.
0.6	Small bridge with cement abutments over a small stream running to right.
0.8	Trail to left front; many houses scattered on both sides of the road.
0.9	Trail to right front.
1.3	Vega de Gómez; houses on both sides of road.
2.3	Trail crosses the road.
2.9	Trail over Río Hondo; ground cultivated.
3.7	Trail divides. Trail to right to La Leña.
5.1	Tienda La Leña. Houses to the left.
5.8	Río La Leña crosses the road, flowing swiftly to the right.
6.9	House to left. Road on the left front and road to the right.
8.1	House on right. Land on both sides of road fenced in.
9.1	Wide crossroad. To left to Arroyo de Agua. To the right, the road to Consolación.
9.6	Arroyo de Agua. One tienda and several houses.
10.3	Two houses on left of road.
10.8	Trail to left over small stream to cluster of houses.
11.0	Trail to right front.
11.1	Stream flowing to right.
11.2	Trail to right.
11.5	Cluster of houses on left.
12.0	Road crosses stream flowing to right.
12.2	Road forks; trail leads to left.
12.6	Trail to right to cluster of houses.
12.9	Trail leads to gate; house on hilltop.
13.4	Stream crosses road, flowing to right.
13.7	Stream to right.

	Miles from Pilotos.
Descansar.	13.8
Stream running to right.	14.0
Crossroads. Road turns to the right and becomes a wagon road.	14.5
Houses to right and left.	14.9
Road forks. Camp site to left of left fork. Road to right to Río las Lajas. House of Ceiba on other side.	15.4
Tienda on hillside, 40 feet above Río las Lajas.	15.7
Stream running to right.	16.0
House to left.	16.1
Road forks.	16.3
Forks join.	17.5
Sabaneton; crossroads.	18.0

ROAD No. 65.

LOS PORTALES—EL VALLE—PASO REAL DE GUANE.

General direction: From Los Portales to El Valle, SE.; from El Valle to Paso Real de Guane, SW. Distance: 11 miles.

IN GENERAL.

1. Los Portales to El Valle, a rough, hilly mountain road, impracticable at any season for any but pack transportation. The native bull cart can, however, be gotten over this road.

2. El Valle to Paso Real de Guane, a dirt road for wagon transportation; impassable in rainy season.

IN DETAIL.

	Miles from Los Portales.
Leave tiendas of Los Portales, running due east.	
Cross Portales River by ford, gravel bottom, easy grade, 20 feet wide, 3 feet deep. Road ascends after crossing.	1.0
Road descends, crossing Arroyo Gil. Road turns due south. After crossing arroyo, the road ascends steep hill for 0.7 mile and runs over a tableland.	1.7
Tienda on right. A road to left to Galafre and San Juan y Martínez, crossing mountains. It is difficult to travel.	3.0
Tienda of Bolondrón. Cross small creek.	3.7
Road descends sharply; very rough and rocky.	4.5
Schoolhouse of El Valle. Turn west.	6.5
Small creek; muddy (Arroyo del Hato).	7.0

- Miles from Los Portales. Cross railroad grade, Western Railway from San Juan y Martínez to Guane.
- 7.5 Steep and rocky road.
- 8.7 Cross railroad grade.
- 9.0 Cross Cuyaguatete River, 30 by 0.5 feet, swift current,
- 11.0 sandy ford with steep banks; easily passable in dry season, but water often 8 feet deep in rainy season. Paso Real de Guane.

ROAD No. 66.

LA JAGUA—PINAR OSCURO.

General direction: NW. Distance: 3.5 miles.

IN GENERAL.

A wagon road in good condition. The first 3 miles over hills with heavy grades. Very little cultivation. No good camp sites. Telephone lines follow road.

IN DETAIL.

- Miles from La Jagua. Starting out of La Jagua the road ascends 150 feet to top of ridge of hills.
- 0.7 Wagon road branches south and southwest over hills to Cabezas de Horacio and Cafetal.
- 0.8 Wagon road branches north and northeast to Manaja.
- 0.9 Road descends 50 feet and runs through pasture land.
- 1.8 Road descends 100 feet and crosses a small creek flowing southwest and reascends 200 feet to the top of a ridge running nearly due east and west.
- 2.3 Trail branches northwest at creek (cut-off). Wagon road branches east to Manaja. Road turns due west and runs along top of ridge.
- 2.6 Wagon road branches north to Pinar Oscuro.
- 3.0 Trail joins from southeast (short cut). Cart road and trail northwest. (Short cut to the Pinar Oscuro-Dimas road.) Road turns north.
- 3.2 Road turns east, descending 100 feet, and crosses a small creek flowing south. Wagon road branches northwest to the Pinar Oscuro-Dimas road.
- 3.5 Pinar Oscuro.—Telephone connection with Manaja, Coniego, Asiento Viejo, La Jagua, and Dimas. (Private line.) Place is sometimes referred to as La Máquina. Numerous lumber drags lead to east and northeast. A pine woods surrounds the place.

ROAD No. 67.

ROAD FROM GUANE—MÁNTUA ROAD (NEAR JUAN GÓMEZ) INTO
HILLS NORTH OF JUAN GÓMEZ.

General direction: N. Distance: 5.2 miles.

IN GENERAL.

A wagon road. Starts out as a fair road running into the hills, but it gradually gets smaller and more indistinct until it finally disappears. Hills covered with pine trees and grass and scattered palm trees. Practicable for wagons as far as it runs. No camping sites.

IN DETAIL.

Road leaves Guane—Mántua road at the junction of ^{Miles from} the Guane—Mántua road and the Guane—Hato Guane ^{Guane—Mántua} Road. Here it branches northwest.

A tienda is in the northeast angle (part of the Juan Gómez district). Road ascends 50 feet.

Descends 50 feet, crosses a small creek flowing south- 1.1
west and reascends 50 feet. Turns north.

Ascends 50 feet. Runs parallel to a creek 0.4 mile 1.5
west of road. Creek flows southwest.

Descends 50 feet, crosses two small creeks about 0.1 4.0
mile apart, both flowing southwest. Road ascends 50
feet.

Terminates near a grove of palm trees. 5.2

ROAD No. 68.

KILOMETER 17, PINAR DEL RÍO—COLOMA CALZADA TO SAN LORENZO
AND BACK TO KILOMETER 8, SAME CALZADA.

General direction: NE. to San Lorenzo and NW. to kilometer 8.

IN GENERAL.

Practicable for wagons. The road runs principally over a large extent of waste land with swamps. Numerous trails of no great importance cross the country in all directions. No bridges; no telegraph or telephone line. With a compass this section of country can be traveled in any direction in dry season, with only delay caused by avoiding swamps. The road for most part is sandy. In rainy season the land is very soft, and wagons off the road would mire.

The river Flamenco has sloping banks, sandy and gravel bottom; good ford. Rise 6 to 8 feet in rainy season, flooding surrounding country. These two roads leaving the calzada at kilometers 8 and 17 for San Lorenzo, are important only that they lead to this large hacienda.

ROAD No. 69.

MÁNTUA—LA UNIÓN COPPER MINE—LOS ARROYOS.

General direction: W. Distance: 9 miles.

IN GENERAL.

This road is good for escort wagons in dry season. All kinds of transportation will experience difficulty in wet weather. No telegraph or telephone lines. Road runs west out of Mántua for 300 yards and then turns almost due south over flat country, gravelly and covered with scrub palms and dry grass.

IN DETAIL.

Miles from
Mántua.

- 0.3 Evidences of mud hole that could be avoided.
- 0.6 Another mud hole; road appears more like a trail.
- 1.0 Road bearing east and west, crosses at right angles. To the right, to Malcasado, to the left to Alasa, 1 league to first, 1.5 leagues to second; 400 yards farther, crosses a marsh which could easily be corduroyed with palms in wet weather; dry season passable.
- 1.3 Road turns down a gentle slope and crosses Arroyo de Lacujauo, always water. Dense brush on both sides. Leaving stream up gentle slope through shallow cut, bearing 290°; signs of mud.
- 1.5 Road to right, bearing west to Pino Gordo, 1 league. At this point road curves back toward south, runs over ridge and down into a shallow valley; 400 yards farther (small stream) thence over another ridge and down again. Thence up a long, low ridge.
- 2.0 Road is still gravelly but 400 yards farther on becomes red clay. Appearances of country, same. A little more rolling; no cultivation since leaving Mántua.
- 2.3 Crosses Arroyo de Canal, small ditch fringed with brush. Beyond, road becomes gravelly again, leaving stream to the right, on ridge are copper mines. Road bears more to west along base of hill; soil gravelly, good road in all seasons.

Road to left, bearing south, crosses stream on corduroy bridge; stream fringed with dense brush and trees. This road passes by the tall brick smokestack of old La Unión copper mine; stack to left. Country still barren, but more rolling and cut up by arroyos, fringed with trees. Miles from
Mántua.
3.3

Mining Camp, the Phoenix mine. 3.6

Road turns toward north, bearing 315° , crossing a dry marsh, thick underbrush to the right, runs up a gentle slope over a low ridge and along other side. Near top. Same general direction, thick brush 200 yards to right, lots of royal palms, wooded ravine to left 150 yards. Wire fence to left. 4.0

Crosses small stream Arroyo Picacho, muddy bottom, no obstacle, wooded ravine to right. Runs up gentle slope, wire fence to left, dense brush and trees on high ground to right. 4.5

Wire fence to left; road changes direction bearing 245° and runs down a gentle slope. Small shrubs and palms abundant on both sides. Good concealment, but would not impede materially the movement of troops. Road passes down a slope, bends back toward right and follows a winding route, but general direction northwest. 4.6

Straight road to Mántua enters from right rear; 100 yards farther road to front Lázaro, 2 leagues, good road. Road to arroyos turns, bearing 290° . La Vigía on left. 5.8

Road to left to Damují, 2.5 leagues. 6.0

Road to right to Canal, 1 league. Roads run down a grade from this point with commanding ground on both sides, covered with dense bushes. 6.3

A little more cultivation to the left, bearing 280° . 6.5

Road crosses shallow hollow, dense brush on high ground to right, wood and brush ravine to left and parallel to road. 6.6

Road crosses low ridge and turns down a shallow, almost level, hollow. Open ground to right and left for varying distances up to 200 yards; right, a long commanding ridge, covered with brush, with a stretch of open ground between it and road. To left, wire fence, patch of open ground and dense brush, all commanding the road. A good place for ambushade. Bearing north. Last half-mile, road passes along higher ground; dense brush and wire fence on left; open to right with clumps of bushes for 400 yards. Beyond, brush. 7.0

Miles from
Mántua.

- Arroyos in sight bearing 340° ; road runs about straight from this point, after dropping down a grade of $2\frac{1}{2}$ per cent for 400 yards. Remainder of road level. Wooded ravine to left ceases at 8 miles, 300 yards to left of road.
- 8.0 From this point country gently rolling; vegas to be seen in the distance; royal palms plentiful; soil sandy and gravelly.
- 9.0 For the last half mile before entering town road crosses a marsh. Dry and solid in the dry season, but submerged in about 2 feet of water in rainy weather. Road runs up a gentle slope and turns toward the west, entering the town at the east end of only street, which is a sandy road for the next half mile to the beach and wharf.

ROAD No. 70.

PLAYUELAS (PLAYA BURRO)—SAN CAYETANO.

General direction: SE. Distance: 5 miles.

IN GENERAL.

A wagon road through pasture land partly under cultivation. Country rolling.

IN DETAIL.

Miles from
Playuelas.

- 2.0 Road turns south.
- 2.2 Turn southeast; pasture land. Road south.
- 3.0 Road to southwest. Cultivation begins.
- 4.0 Cross road; to southwest and north. The latter runs to Esperanza. Tienda San Cayetano.
- 5.0 Enter San Cayetano from northwest, passing cemetery.

ROAD No. 71.

KILOMETER 8.2 CALZADA PINAR DEL RÍO—COLOMA—MUÑOZ—CASTAÑEDA—LLANADA—KILOMETER 17 SAME CALZADA.

General direction: S.

IN GENERAL.

The road passing these places leaves the calzada at kilometer 8.2 and, passing Muñoz and Llanada, reenters the calzada at kilometer 17. Practicable for wagons, dry and wet seasons. The arroyo near Llanada would probably be difficult in the rainy season, but there is plenty of timber near by for bridging.

ROAD No. 72.

ESPERANZA—CAYO DE LIMÓN—LA MINA—DISTRICT OF ROSARIO—
ESPERANZA.

General direction: Circuit. Distance: 16 miles.

IN GENERAL.

Esperanza to Cayo de Limón, a road passable for wagons during dry season and for carts in all seasons. Grades easy as far as Arroyo San Cayetano, thence steep. Heavily-loaded wagons would have to double teams to make grades. From this point to La Mina is a trail passable only for pack animals; it is hilly and covered with pine.

IN DETAIL.

Leave south end of Esperanza bearing a little east of south. Road to east to San Pedro and El Rosario; to west to San Cayetano.	Miles from Esperanza.
Road divides; east to San Pedro and El Rosario; west to San Cayetano.	0.5
Cross roads; San Cayetano to El Rosario. Road continues level for 1 mile, passing inhabited region. Pasture lands.	0.8
Cross low ridge. From this point follow a low ridge line.	1.5
Cross Arroyo San Cayetano. Banks sloping, bottom sandy, 2 feet wide, 2 inches deep. Turn a little west of south. Wind over succession of low hills to Cayo de Limón.	2.5
Cayo de Limón. Turn almost due east for 0.5 mile.	4.0
Cross small arroyo.	4.5
Cross small arroyo.	5.0
Trail bearing 327° crosses.	5.2
Cross Dolores branch of the Rosario River, ascend a short steep grade, and enter the cart road to La Mina which runs along ridge. Cross small valley and Arroyo La Mina and enter La Mina. Cultivation.	6.5
La Mina. Road follows La Jagua road for 1 mile and turns northwest.	8.0
Turn northeast; country hilly and covered with pine. Little cultivation. Grades steep in many places and practicable for pack animals only.	9.5
Trail crosses and cart road commences.	10.5

Miles from
Esperanza.

- Enter wagon road. To right to La Jagua and La Palma (Consolación del Norte); to left to Esperanza and San Cayetano.
- 11.5
- 11.9 Turn west. Trail to north to main road along the coast.
- 12.3 Road to north to main road, joining at crossing Río Rosario.
- 13.0 Cross El Rosario River; crossing good; bottom sandy; 8 inches of water; 15 feet wide; banks 4 feet high. Pass over low ridge to tienda San Francisco.
- 15.5 Tienda San Francisco. Cultivation and grass.
- 16.0 Esperanza.

NOTE: From point beyond 6.5 miles where trail enters cart road to La Mina, the road runs southwest to San Vicente, crossing river at 0.5 mile east of San Vicente. Swampy at crossing. This point is called Dolores.

ROAD No. 73.

MACURIGES—BAJA.

General direction: N. Distance: 5 miles.

IN GENERAL.

This road is a broad wagon road practicable for any class of transportation.

IN DETAIL.

Miles from
Macuriges.

- About 0.5 mile out of Macuriges the road crosses the
- 0.5 Macuriges River. The river is about 12 feet wide and 3 feet deep. It has an 8-mile current, flowing northwest to the coast. The road crosses by means of a ford, approaches easy, bottom gravel. Fluctuation marks, about 6 feet.
- 1.0 The road gradually ascends a low line of hills in a northern direction (slope about 0.5 mile; grade 10 per cent). Here it runs on the ridge of this line of hills for about 2.5 miles in a northeast direction.
- 3.5 At this point a road (cart) branches to the northwest and runs to the coast. The main road continues in a northeasterly direction for about 0.5 mile down a gentle
- 4.0 slope to the Zarzal River (slope 0.5 mile; grade 10 per cent), which is about 8 feet wide, 2 feet deep, has a

3-mile current running northwest to the coast. Fluctuation marks about 2 feet, with a spread of about 20 feet. Fordable; approaches poor on account of heavy clay soil and bog holes. Bottom uncertain. Water of a poor quality. From this river the road ascends a gentle slope for about a mile into Baja (slope 0.5 mile; grade 5 per cent) about 3 miles from the coast. The Macuriges River has an abundance of excellent water. The Macuriges valley is cultivated, and on either side of the river there is a meadow land for 0.2 mile. The line of hills is covered with a scanty growth of pine trees. To the right of the road there are a few cultivated patches. On the left of the road there is a wire fence. The coast is about 3 miles to the left of the road. Between the coast and the line of hills the country is marshy and covered with dense underbrush and palm trees. The Zarzal River bottom is heavily wooded. There is little cultivation near Baja. Grass grows in the river bottom. From Baja the road continues up the coast in a northeasterly direction to Río del Medio. There are good camping sites in the Macuriges valley near Baja.

Miles from
Macuriges.

5.0

ROAD No. 74.

BAJA—PLAYA DE BAJA (2 ROUTES).

General direction: W. Distance: 4.5 miles.

IN DETAIL.

Baja to Playa de Baja; distance 4.5 miles. This is a good dirt road for all kinds of transportation; passes through grass plains.

Playa de Baja.

1.7

Playa de Baja to Baja by another route. Distance 4.5 miles. This is a very good dirt road.

Miles from
Playa de Baja.

San Ramón.

1.7

Joins camino Real.

2.0

Río Zarzal.

4.0

Baja.

4.5

ROAD No. 75.**RAMONES—MOUTH OF GALAFRE RIVER.**

General direction: S. Distance: 2.5 miles.

IN GENERAL.

Sandy and through open country for half distance; through "mangle" swamps rest of way.

IN DETAIL.

Miles from Ramones.	Road branches from San Juan-Sábalo road at tienda Ramones.
0.2	Cross small arroyo.
1.0	Cross railroad.
1.5	Enter "mangle" swamps, generally dry and sandy at this point.
2.5	Arrive at small group of fishermen's huts near outlet of Laguna Galafre.

ROAD No. 76.**LA TEA—SAN LUIS.**

General direction: NE. Distance: 6.5 miles.

IN GENERAL.

A good dirt road through level country, sparsely inhabited.

IN DETAIL.

Miles from La Tea.	Leave La Tea northeast through barren country. Many unimportant roads.
3.5	Two small lagoons on left of road at settlement called Las Cruces. Join San Luis-Salinas road 1.5 miles from
6.5	San Luis. San Luis.

ROAD No. 77.**CUATRO CAMINOS—LA PALMA (CONSOLACIÓN DEL NORTE).**

General direction: SE. Distance: 5.7 miles.

IN GENERAL.

A trail running due east from Cuatro Caminos through a thickly wooded country along a ridge line for 1 mile; thence a little south of east through similar country; underbrush and pine. Country little settled and cultivated.

IN DETAIL.

Go south, crossing a very small stream; thence north-east to farmhouse, trail good, country wooded and hilly. Miles from Cuatro Caminos. 1.0

Turn a little south of east.

Cross arroyo after passing farm; pass through pine timber; bed of trail firm clay. 1.5

Trail to north connecting with main cart road along ridge line to north along the coast. This trail can easily be followed. 2.3

Cross trails. North, past farm and connecting with same ridge trail. South through cultivation to La Palma. This trail to La Palma crosses river 1.2 miles from this point. This crossing is better than that on the trail under description. Cart road through cultivated district just before crossing river. 3.0

Cross Río Blanco, banks steep and 15 feet high, stream 20 feet wide and 10 inches deep. Can not be crossed after heavy rains. Trail ascends hill, passes through a gate and becomes a cart road in good condition. Camp site at river crossing; water and grass. 3.8

Enter cart road (main road), which from this point to La Palma is passable for wagons. 4.6

Enter main wagon road from Río Blanco. 5.4

Enter La Palma. 5.7

ROAD No. 78.

TRAIL BANES—MARIEL.

General direction: W. Distance: 9 miles.

IN GENERAL.

From Banes the camino Real or Mosquito trail runs west to Mariel. Carts can pass over the trail during the dry season, and cavalry and infantry during any season of the year. Grazing is very good and cattle are plentiful.

The Río Mosquitos crosses the trail about 1 mile west of Sabana. It is easily forded. Stream about 10 feet wide, 1 foot deep, gravel and rock bottom, easy approaches. The trail from Sabana to Mariel is hard to follow owing to the fact that it is crossed by numerous trails, a number of which are better defined than the main trail. As the trail approaches Mariel the hills become higher and the trail consequently more difficult. The trail leads into Mariel over a hill on which is situated Reuben's house. There is another trail coming

into Mariel along the coast branching from camino Real at Sabana, but it is not as good as the main trail, owing to rocks and indentations of the coast.

ROAD No. 79.

VIÑALES—PILOTOS.

General direction: SE. Distance: 11 miles.

IN GENERAL.

This road leaves Viñales south on the Pinar del Río road, but branches off to the southeast at Murguia. A wagon road of dirt, 6 feet wide. Practicable for carts.

IN DETAIL.

Miles from
Viñales.

- 0.2 About 0.2 mile out of Viñales it crosses a small creek flowing northeast. Bridge iron, or steel, railroad rails; about 6 feet long and 18 feet wide; strong and durable; has a stone foundation about 4 feet high; condition excellent. The road crosses another small stream, shallow and fordable, flowing northeast, about 0.2 mile from the first one.
- .5 Road here ascends the small hills (slope 200 yards, grade 10 per cent). At the summit of these hills a wagon road branches to the east to San Andrés. Road then runs nearly due south across a sandy waste to the high hills.
- 1.0 About 0.2 mile from the summit of the low hills a trail branches to the southeast, and leads to a cemetery about 1 mile east of the road.
- 1.7 About 0.2 mile farther another trail branches to the northwest, and also leads to the cemetery. At this point a small shallow creek crosses the road. It flows in an eastern direction.
- 2.6 A trail leads to the northeast.
- 3.6 The road passes an old abandoned tienda on the left of the road named Santa Fé. About 0.5 mile to the right are three houses. From Santa Fé the road runs to the summit of the high hills (slope about 0.5 mile, grade 20 per cent) and continues in a southwestern direction from one hill to another until it reaches a tienda. The hills traveled are steep and very irregular. (Slope and grade about the same as the first hill.)

The tienda is on the right of the road. It is called the Spanish tienda. Here a road branches to the south to Pinar del Río. A telegraph line from Viñales to Pinar del Río follows the road as far as this store and here branches with the Pinar del Río road. The Pilotos road then continues in a southeastern direction along the ridge of hills. Two trails about 200 yards apart lead to the eastern hills, one at the tienda and the other farther south. On each side of the ridge traversed is a cultivated valley with a small stream in each flowing in a southern direction. The road continues on this ridge for about a mile.

 Miles from
Viñales.

5.9

It then runs into the Pilotos valley (slope about 0.5 mile, grade 15 per cent).

7.2

At the foot of the hill a small, shallow, fordable creek crosses the road, flowing eastward. The road then continues into the valley in a southern direction for about a mile and then turns due east and runs into Pilotos.

7.9

A cemetery is situated about 0.5 mile out of Pilotos on the right of the road and about 100 yards from it. The road from the hills to Pilotos is level.

11.5

The Pilotos-Pinar del Río road branches to the south-east about 1.5 miles out of Pilotos. The Viñales valley is cultivated. From the first small hills to the high hills there is a sandy waste. Near the base of these hills the ground is cultivated in patches. The hills are barren except for a scanty growth of pine trees. The Pilotos valley is cultivated and contains many scattered houses. Both valleys contain good camping ground for a squadron.

12.5

ROAD No. 80.

SAN LUIS—SAN JUAN Y MARTÍNEZ.

General direction: W. Distance: 5 miles.

IN GENERAL.

A fairly good dirt road but rough in places. In dry season passable for all classes of transportation. In rainy season passable probably only for bull carts.

IN DETAIL.

Leaves town from west end of main street, running west to cemetery, leaving sandy sparsely vegetated hills to right and well-cultivated lands to left.

 Miles from San
Luis.

0.5

Miles from San
Luis.

- To this point road is a calzada of recent construction. Railroad station. Crosses railroad at kilometer 194. Two tiendas.
- .7 Tienda north of road.
- 1.0 Crosses railroad again at kilometer 195 and immediately afterwards crosses the San Sebastián River by ford. Banks of ford rather steep, bottom sandy. River in dry season 3.5 feet deep, about 20 feet wide.
- 2.0 Tienda south of road. Direction changes to northwest, branch road running southeast to Salinas where there are salt works on coast.
- 3.2 Crosses railroad at kilometer 199, at store sheds of American Tobacco Company.
- 4.5 Road runs through tobacco plantation of American Tobacco Company. Road joins Pinar del Río-San Juan y Martínez road. Road descending.
- 4.7 Road goes downhill, crosses San Juan y Martínez River over ford. Easy sloping banks, gravel bottom, river in dry season 2 feet deep, 25 feet wide.
- 5.0 San Juan y Martínez. Country between these towns fertile and generally under tobacco cultivation, it being the heart of the Vuelta Abajo district. Numerous branches leave this road, all running to vegas and private houses.

ROAD No. 81.

PUEBLO NUEVO—EMBARCADERO DE COROJAL.

General direction: SE. Distance: 8.7 miles.

IN GENERAL.

A good dirt road practicable for bull carts in dry season, running to the south coast over level, uncultivated country; impassable in rainy season. Road lined nearly entire distance by wire fences.

IN DETAIL.

Miles from
Pueblo Nuevo.

- Road runs southwest from Pueblo Nuevo.
- 3.0 Three roads join it (one from the calzada, 2.5 miles north, and 2 from the southwest, coming from the Candelaria-Jejenes trail). The road from this point runs southeast.
- 3.7 Finca Laguna de Piedras. (The lake of that name lies just east of the road; it is about 1 mile long by 0.2 mile wide, good water, plenty of grazing and wood. Good

location for encampment of a brigade of troops in the dry season. Road continues east of south. Miles from
Pueblo Nuevo.

Finca La Marquesa. Three-quarters of a mile beyond a trail crosses the road, coming down from Pueblo Nuevo, and continues on southwest to finca Boyero, connecting there with road that connects with the Candelaria-Jejenes trail at finca Puerto Rico. Road continues southeast. 5.2

Finca Corojal. Here one trail runs southwest connecting with trail to finca Jejenes, just south of finca Crimea, and another trail runs southwest to finca Jejenes. These trails are only used by hunters and are very poor, hardly practicable for horses, owing to thick underbrush and marshy ground. Road continues southeast. 6.2

Finca Naranjal del Chino. Here dirt road ends and becomes hardly more than a trail over marshy ground, practicable for horses. 7.5

Finca Playas, where a macadam road, sufficiently wide for one wagon, with openings in places for two wagons to pass, continues on to Embarcadero de Corojal on the south coast. 8.7

ROAD No. 82.

SAN BLAS—SAN DIEGO DE NUÑEZ—BAHÍA HONDA—NAZARENO—
CABAÑAS—OROSCO—SAN CLAUDIO.

General direction: NE.

IN GENERAL.

Within a mile northwest of San Blas there are two trails branching off north to San Diego de Nuñez. These trails eventually run together and enter San Diego de Nuñez from the south. The trail is not very good, but passable for pack train. There is a trail from San Diego de Nuñez to Cabañas via San Claudio passable for pack trains in dry season; impassable for animals during rainy season. At the old ingenio of San Gabriel trail branches to north, crosses the Cabañas-Bahía Honda trail and continues on to central Orosco. A camino Real (at one time a good road) runs west to Bahía Honda; wire and stone fences on both sides; the first 2.5 miles impassable in rainy season; from there on the road runs into foothills and is passable at any season of the year for pack train. Another dirt road runs off to the northwest to Nazareno, where it connects with the Cabañas-Bahía Honda road; passable for carts in dry season; impassable in rainy season (pack train loaded light might get through). The Nazareno River (Río San Diego de Nuñez) is very close to San

Diego de Nuñez; about 20 feet wide, 1 foot deep, gravel bottom, high banks cut to ford; water good; grazing in immediate vicinity good; make good camp for regiment of cavalry or infantry.

ROAD No. 83.

NAZARENO—INGENIO SAN IGNACIO—CANDELARIA—SANTA TERESA—
CARENERO—PIOS—MORENA—AMÉRICA—BRAMALES—OROSCO.

General direction: NW. to Carenero, E. to Orosco. Distance: 9.2 miles.

IN GENERAL.

Good dirt roads in the dry season over rolling country, practicable for bull carts; during the rainy season practically impassable.

IN DETAIL.

Miles from
Nazareno.

At Nazareno dirt road turns north from the Bahía Honda-Cabañas road, descends hill to San Diego River, crossing same; river about 20 feet wide, 2 feet deep, gravel bottom, good running water, high banks cut to ford (foot-bridge across river just above the ford), river impassable in the rainy season. Road continues northwest along river, which is heavily lined with bamboo.

- 0.7 Road leaves river bank, turns north through fields to
- 1.0 point where road divides, one northwest to Santa Teresa and the other northeast to San Ignacio. The road to Santa Teresa continues in that direction 2.5 miles over rolling pasture land to Santa Teresa. The road to San Ignacio ascends slightly and continues through pasture
- 2.2 land 1.5 miles to San Ignacio, which is an entire ruin, except one stone house. The road continues to a point 0.2 mile northeast of San Ignacio, where road divides; one northeast goes to central América, one west to Santa Teresa. At this point the following places can be seen: San Ignacio, 5 points west of southwest: Candelaria, 5 points north of east; Bramales, northeast; Orosco, 10 points north of east; Santa Teresa, 10 points north of west; América, northeast.
- 4.5 From this point the road continues 2 miles to Santa Teresa, which is an entire ruin, excepting part of large stone house, which is still standing. There is an old railroad running from Ignacio through Santa Teresa to a small bay of Bahía Honda Bay just south of the fishing village of Carenero. There is a stone warehouse at the beach. This road is well graded throughout its entire

length. From Santa Teresa the road continues north for 0.5 mile, where it crosses a very marshy piece of ground about 50 feet wide, then turns west, turning gradually to the southwest over coral rocks 0.7 mile to the fishing village of Carenero. The last half mile of the road is in numerous places submerged by the tide. In order to reach the old fort, San Fernando, it is necessary to follow along the beach. This trail is practicable for horses during low tide, but it is impassable during high tide. The fort is located on the east side of the entrance of Bahía Honda Bay, and at one time controlled that entrance.

Returning to the point 0.2 mile northeast of Ignacio and 2.5 miles from Nazareno, trail branches south 0.5 mile to Candelaria; ruin; one shack standing. The road continues northeast for 1.5 miles, where road divides, one north 0.5 mile to Morena. From this point a road runs northwest 1 mile to the old ingenio of Pios (one stone house). Another road runs north 1 mile to a small bay at the mouth of the Santiago River. Going back to point where road divides, the road southeast continues in that direction 1 mile to central América. The central América-Morena road is a very good dirt road, wide and well defined and fenced on both sides, while roads previously described are not fenced at all and are hardly more than trails across pasture land, frequently cut off by wire fences. From this point nearly all of the land is under cultivation of sugar cane. From central América a dirt road runs southwest 1.5 miles to the old ingenio of San Juan de Dios, and from there 1.7 miles southeast to the old ingenio of Santiago, connecting there with the Cabañas-Bahía Honda road. From central América road runs northeast, crosses wooden bridge which spans the Santiago River (bridge 20 feet wide, made of rough material; river about 10 feet wide by 1 foot deep; muddy banks and bottom; during rainy season the river floods the road); road continues northeast; branch road runs southeast to central Orosco; main road continues to central Bramales. From Bramales there is a dirt road running north about 2.5 miles to the pier on Cabañas Bay, and another dirt road runs west 1 mile to old ingenio of Gertrudis. The road to central Orosco leads out southeast through cane fields for 1 mile, connecting with road from the pier La Luisa to Orosco at 0.7 mile northeast of central Orosco. At central Orosco the road connects with the Cabañas-Bahía Honda road.

 Miles from
Nazareno.

5.0

5.7

6.7

7.5

8.5

9.2

ROAD No. 84.

SAN VICENTE—DOLORES—LA MINA.

General direction: NE. Distance: 4 miles.

IN GENERAL.

From San Vicente to Dolores roadbed is of rock and clay; not liable to washouts; swampy in vicinity of El Rosario River. From Dolores to La Mina soil is loamy and soft and would be badly cut up in wet season. Practicable for cart transportation; grades easy.

IN DETAIL.

Miles from
San Vicente.

- | | |
|-----|---|
| 0.5 | Crosses El Rosario River; swampy at crossing. |
| 2.0 | Dolores. |
| 2.2 | Crosses a very small stream. |
| 3.7 | Crosses a second small stream just before entering La Mina. |
| 4.0 | La Mina. |

ROAD No. 85.

TRAILS FROM CABAÑAS—CONCHITA—SAN JUAN BAUTISTA (CABAÑAS)—
SAN JOSÉ—SAN JUAN BAUTISTA (GUANAJAY)—EL JOBO—MEN-
DIVE—CHACÓN.

General direction: SE.

IN GENERAL.

From Cabañas to Río Dominica trail is fairly good and passable for wagons during the dry season. This point would make a good camp for a large body of troops; water is plentiful and of a good quality; grass plentiful; dry wood, however, is scarce; cattle in large numbers.

The bridge at San Juan Bautista (Cabañas) is down, but river can be forded; stream about 15 feet wide, 2 feet deep, muddy bottom, and low banks. During the rainy season this river floods the surrounding country. From this point to San José there are so many trails leading from the main trail that it is practically impossible to travel without a guide. This trail is practicable for infantry and cavalry. From San José to San Juan Bautista (Guanajay) there does not seem to be any general trail; it is practically across country. About 1.5 miles southeast San José River flows northeast, about 20 feet wide, 2 feet deep, no bridge, gravel and rock bottom, banks rather steep; fordable for cavalry and infantry. This would make a good camping place for either cavalry or infantry; water good, plenty of

wood from scrub growth, grazing good. From San Juan Bautista (Cabañas) to San Juan Bautista (Guanajay) trail is passable for infantry and cavalry. From San Juan Bautista (Guanajay) trail to El Jobo is fairly good; passable for wagons. From El Jobo to Mendive trail is passable for wagons. This trail connects with the Cayajabos-Mendive trail 1.5 miles southwest of Mendive. Plenty of cattle, hogs, and fowl throughout this section. Grazing good. From Mendive to Guanajay trail run through Chacón and connects with Guanajay-Artemisa calzada 0.5 mile south of Guanajay. Practicable for carts.

Another road from Mendive connects with the Mariel-Guanajay calzada at the 4-kilometer post. This road is passable for wagons during the dry season. Another road, passable for wagons, leads south from Mendive to central Pilar, where it connects with metaled road which runs into calzada just north of Artemisa.

ROAD No. 86.

GUANAJAY-MARIEL (DIRT ROAD).

General direction: N. Distance: 7 miles.

IN GENERAL.

A good dirt road for bull carts and light loaded wagons in dry season; impracticable for wheeled transportation in rainy season. Road is very rocky in places. Sufficiently wide for two wagons to pass. Road is lined with stone and wire fences the entire distance.

IN DETAIL.

Road runs north from Guanajay past the hospital over level country. Miles from Guanajay.

Road branches; one branch runs northwest over 1.0 pasture land (rolling country).

Finca Valdéz. Road continues along ridge, north- 4.5 west.

Old road comes in from Sabana from the northeast. 5.7 (This is the Mosquitos trail or camino Real which runs east through Banes, central Lucía, and from there to Habana, connecting in several places with the Guanajay-Marianao Calzada.) From this point the road runs north for a short distance, then northwest to Ruben's house (on hill east of Mariel) and descends.

Miles from
Guanajay.

7.0 Mariel. The other branch runs slightly west of north 1 mile to the ruined sugar mill Noroña, where road branches; one road runs a little east of north over pasture land a distance of 3 miles to Sabana on the Mosquitos trail; the other branch runs northwest to where a branch road runs west 1.5 miles to the finca Valdéz, connecting there with the other Guanajay road. The main branch continues northwest for 1 mile, then turns nearly west, and 1 mile beyond connects with the Mosquitos trail or camino Real, 0.2 mile from where it runs into the Guanajay-Mariel road.

ROAD No. 87.

TRAILS FROM GUANAJAY NORTHEAST ON RIDGE OF LOW HILLS TO
BANES, ENCARNACIÓN, AND CAIMITO.

General direction: NE.

IN GENERAL.

Leaving Guanajay by the north end of Villate street, a trail runs northeast through low country in the direction of a ridge of hills known as Sierra del Anafe. This ridge runs a little north of east, the western end of the ridge ending within 0.3 mile of the Caimito-Guanajay calzada, about midway between the two towns. This end of the ridge is a very conspicuous landmark, presenting a steep palisade of white rock standing 100 feet above the road. The ridge is probably not over 8 miles long. The trail leads directly toward this ridge, passing through cultivated fields and private ground. Gates are frequently encountered, but the trail is well defined. The approach to the top of the ridge is very gradual through a small valley about 500 yards wide and leading straight to the top of the ridge. About 1.5 miles from Guanajay, and just before entering this valley, the ingenio of San José can be seen off to the southwest about 1 mile distant, the hacienda of San Francisco 2 miles beyond, Guanajay directly in rear, and Ruben's house at Mariel off to the northwest.

The top of the ridge is about 500 yards wide at the point where the trail crosses. Here another trail comes up from the ingenio San Gabriel, which can be seen from the top of the ridge about 0.5 mile in an air line directly south. Southwest the post of Guanajay can be seen very distinctly. By moving 100 yards to the north side of the ridge all the country to the sea can be seen from Mariel Bay to

Habana. Central Lucía is plainly visible not over 5 miles in an air line to the northeast.

All the country to the north is very rolling. The descent on the north side of the ridge is quite steep and rocky. The trail divides at the bottom of the descent, one running north to the old ingenio Coronela, which is a ruin, and the other running east through the finca Quintana, where old ingenio Copey is situated, parallels the ridge, and about 1 mile from the bottom of the descent runs into a cart road leading to Caimito. This road turns northeast through the finca Santiago. About 0.5 mile beyond the road turns north for about 200 yards and at a near building divides. One road leads north to Coronela, the other east to Caimito. After following the latter road for 0.5 mile the road again divides; the main road leading off to the southeast runs to Caimito, the road branching north to Banes. Both of these roads are well defined and lined by royal palm trees. They are very rough and rocky and have been worn by travel and rains until they are below the surface of the field on either side. Banes is about 3 miles from the junction of the roads; Caimito about the same distance. From this point the road to Banes descends to a small stream, easily forded, and after ascending a rocky slope to an old ruin turns west of north at about 300 yards from junction. The road continues in a northerly direction through the fincas Santa Marisia, Conformida, Sulong, and Mamey. At the latter point it passes an old cemetery, and a few hundred yards beyond joins the Mosquitos trail at Banes. The Mosquitos trail or camino Real, which comes in from Mariel, crosses a stream and continues on northeast to the central Lucía, crossing another small stream (Río Banes) just before entering central Lucía. The camino Real continues on through Baracoa, Marin, and runs into Habana almost parallel to the calzada.

Between central Lucía and Baracoa branch trails turn off, one to Hoyo Colorado, connecting that point with the calzada, and another to Encarnación. Both of these trails are practicable for infantry, cavalry, and artillery.

From Encarnación there is a fine metaled road about 1.5 miles long, connecting with the calzada midway between Hoyo Colorado and Caimito, and about half way between the twenty-eighth and twenty-ninth kilometer posts. This road is wide enough for two wagons, is high and well drained.

ROAD No. 88.**PINAR DEL RÍO—LAS OVAS.**

General direction: NE. Distance: 7.2 miles.

IN GENERAL.

A fairly good dirt road in dry season, but rough in places. Would be practicable for all classes of transportation in dry season but for bad bridge over Paso Viejo River (Río San Felipe), which is impassable, even for pack transportation. There is a ford 50 yards south of bridge which can be crossed by pack transportation in dry season; in rainy season impassable.

IN DETAIL.

Miles from Pinar del Río. Road follows Pinar del Río—Marcos Vázquez road for 3.2 miles, where it branches off to left. To the south is La Sabana de Mateo Sanchez.

4.5 Cross roads. Right to Marcos Vázquez, left to Paso Rubio. Country generally flat and uncultivated; sparsely settled.

6.5 Tienda left, schoolhouse right. Road to right front to southeast to Marcos Vázquez. From this point to Las Ovas country cut up by small lagoons; fertile; generally under tobacco culture.

6.7 Crosses Paso Viejo River (Río San Felipe). Bridge in poor repair. Trestle work seems good, flooring poor, could easily be repaired; 60 feet long, 25 feet high. Ford 50 yards south of bridge; banks steep, bottom sandy, quicksand in immediate vicinity; river in dry season 4 feet deep, 15 feet wide.

7.2 Las Ovas, kilometer 166, Western Railway of Habana.

ROAD No. 89.**VIÑALES—GUAJANÍ.**

[A part of El Camino del Infierno.]

General direction: W. Distance: 2.7 miles.

IN GENERAL.

Wagon road, dirt; average width about 8 feet; level and practicable for all classes of transportation.

IN DETAIL.

Miles from Viñales.

Starting from the church in the town of Viñales the road runs nearly due west.

0.5 A trail branches to the southwest.

A shallow, fordable creek, flowing north, crosses the road about 1 mile from Viñales. About 50 yards west of this creek a cart road branches to the southwest and runs to San Felipe. From the creek the road continues nearly due west to Guajani.

Miles from
Viñales.
1.0

Guajani consists of two tiendas situated on the right of the road about 100 yards apart. At a tienda a wagon road branches to the north to houses at the foot of the mountains on the right. The Viñales-Guajani road continues on down the valley in a southwestern direction to Las Cabezas de Montiel via El Infierno and Rancho de la Cueva. The land on both sides of the road from Viñales is cultivated. The valley is about 1.3 miles wide near Viñales and about 0.5 mile wide at Guajani. On the left of the valley are high hills and on the right inaccessible mountains. Plenty of wood in the hills, and grass and water in the valley. Good camping site for a squadron most anywhere in the valley.

2.7

ROAD No. 90.

SAN MIGUEL DE LOS CALDERETEROS—CACARAJÍCARAS.

General direction: SW. Distance: 7 miles.

IN GENERAL.

Broad, red clay trail, rocky in places, but generally steep, muddy and slippery. Runs through jungle nearly the entire way. Practicable for pack train in dry season.

IN DETAIL.

Take trail going up river.	Miles from San Miguel.
Trail crosses Río San Miguel (or Río Manimaní), goes through small gate and straight ahead. Fair crossing.	0.1
Bad gully.	0.2
Through small gate and across another trail.	0.3
Crosses Río San Miguel (or Río Manimaní) again. Fair crossing.	0.4
Through small gate.	0.7
Shack on both sides. Trail branches just beyond. Go to the right.	0.8
Top of hill. Steep ravine on left. Palms and brush. No cultivation.	1.1

- Miles from San Miguel.
- Soil dark, reddish brown, followed by gravel. Brush and palms on both sides. Good broad trail here.
- 1.3 Small trail on right.
- 1.9 Small trail on right.
- 2.0 Small trail on left.
- 2.1 Three-foot stream. Water 20 horses. Trail becoming steep.
- 2.2 Mud holes in trail.
- 2.7 Steep and slippery. Dense underbrush on both sides for last 1.5 miles. Considerable timber.
- 2.8 Cross trail.
- 3.4 Trail on the left.
- 3.6 Number of mango trees on both sides.
- 4.1 Small grassy opening.
- 4.3 Small stream on left, 40 feet below.
- 4.5 Eight-foot stream. Water 20 horses.
- 4.6 Trail on left.
- 4.7 Jungle not so dense. Ravine on both sides. Number of palms.
- 5.3 Fenced clearing.
- 5.4 Trail on left. Two small deserted huts on the right.
- 5.5 Faint trail on the right.
- 6.0 Large rocks in trail for short distance.
- 6.1 Small open spot. Trail on the left. Mountains on the left and straight ahead.
- 6.2 Small stream. Water 2 horses. Open spot just beyond.
- 6.6 Small rivulet.
- 6.9 Cacarajícaras.—Small clearing surrounded on all sides by thick jungle. Two or three shacks and tobacco barns.

ROAD No. 91.

TRAIL SANTO TOMÁS—CANGRE.

General direction: SE.

IN GENERAL.

The trail is practicable for pack transportation throughout the year. It is in good repair, but, owing to mountainous nature, somewhat difficult. After leaving Santo Tomás the trail is practically level for about a mile; it then passes over hills for a mile, where an extensive plateau is reached. The trail from this point for about 4 miles

is level; the rest of the trail passes over a rough and mountainous section called Cerro de Cabras. No streams are encountered until the foothills in the eastern part of Cangre are reached.

ROAD No. 92.

SAN JULIÁN—ASIENTO VIEJO OR SAN JULIÁN VIEJO (SOUTH OF GUANE).

General direction: S. Distance: 4 miles.

IN GENERAL.

This is a very good dirt road, passable by all kinds of transportation in dry season, impassable by wagons in rainy season. There is not a habitation on the entire road and no marks of military interest. Distance 4 miles. The country is all waste savanna land.

ROAD No. 93.

SAN LUIS—Río FEO.

General direction: N. Distance: 6.5 miles.

IN GENERAL.

Good dirt road through low rich country lying in the valley of the Río Feo and Arroyo Trancas. Impassable in wet season.

IN DETAIL.

Leaves San Luis in a northerly direction, bending to the east and again to the north.	Miles from San Luis.
Crosses Arroyo Pomarosa.	2.2
Passes through settlement of Barbacoa, crossing Arroyo Barbacoa.	3.2
Turns to west and crosses railroad at kilometer 188, about 0.2 mile southwest of railroad station and tienda of Río Feo.	3.5
Follows railroad and crosses Arroyo Trancas. Turns to the northwest, following course of Arroyo Trancas.	4.2
Crosses small arroyo.	5.0
Joins Pinar del Río-San Juan road, about 1.5 miles southwest of Río Feo.	6.7
Blockhouse on the left. A large number of important connecting roads.	6.5

ROAD No. 94.

SAN LUIS—RETIRO—SALINAS.

General direction: S. Distance: 8.7 miles.

IN GENERAL.

A fairly good dirt road for first 6 miles, after which it winds about in the coast swamp (mangle) which covers the southern coast of this part of the island for a distance from coast of from 2 to 5 miles. Up to this point the road is in the dry season passable for all classes of transportation, beyond this for pack transportation only. In the rainy season, the last 3 miles would be impracticable for all classes of transportation.

IN DETAIL.

Miles from San
Luis.

- Road leaves San Luis from west end of main street running south.
- 0.5 Crosses two small arroyos over which the road is corduroyed.
 - .7 Crosses Corajo River over wooden bridge 60 feet long, 30 feet high, in good repair. Road to left to Tirado.
 - 1.2 Crosses Arroyo Juan de Rojos over small wooden bridge.
 - 1.5 Tienda right, schoolhouse left. Crossroads. Straight ahead to Punta de Cartas, right to San Juan y Martínez, left to Salinas.
 - 2.5 Lagoons on either side of road. Retiro. Country generally flat and under tobacco culture.
 - 3.5 Small lagoon to left.
 - 3.7 Tienda right; branch road to west to Punta de Cartas via Las Barrigonas.
 - 4.2 Small lagoon right.
 - 5.0 Small lagoon left; country flat and lower than before, practically no cultivation.
 - 6.5 Road enters coast swamp (mangle).
 - 8.7 Salinas.

ROAD No. 95.
PUNTA SAN JUAN—SAN LORENZO.

General direction: SE. Distance: 8.5 miles.

IN GENERAL.

A good dirt road through gently rolling country, cultivated as far as Las Ovas and thereafter through sandy, uncultivated country.

IN DETAIL.

Leaves tienda of Punta San Juan in a southeastern direction through rich tobacco country to Las Ovas. Miles from Punta San Juan.

Turns east and bends sharply to the south and crosses railroad near kilometer 165. 4.2

Bends southeast. 4.5

Tienda on right. 5.5

Small lagoon to the right. 5.7

Lagoon to the left. 6.0

Tienda on the left. Road turns east and crosses the Ajiconal River—steep banks; width 15 feet; gravel bottom, depth 1 foot. 6.2

Crosses Marcos Vázquez—Puerta de Golpe road. A number of unimportant connecting roads. 7.7

San Lorenzo. 8.5

ROAD No. 96.
SAN ANDRÉS—CAIGUANABO.

General direction: E. Distance: 4 miles.

IN GENERAL.

A good level wagon road, 8 feet in width, practicable in all seasons.

IN DETAIL.

This road follows road Viñales—San Andrés via Ceja Ana de Luna to second creek crossing, where it branches off and runs southeast. Miles from San Andrés. 1.5

Passes between two ridges for a distance of 0.2 mile. 3.0

Caiguanabo. A vega on San Diego River, a sandy bottom stream 10 feet wide, 6 inches deep, steep banks, 8 feet high at ford. A good camping place with plenty of wood, grass, and water. This road crosses the San Diego River at Caiguanabo, then divides. Road to east to San Diego de Los Baños. Trails to south to Las Lajas, Arroyo de Agua and Pilotos. 4.0

ROAD No. 97.**PUERTA DE GOLPE—CONSOLACIÓN DEL SUR.**

General direction: NE. Distance: 4 miles.

IN GENERAL.

A good dirt road through level cultivated country.

IN DETAIL.

Miles from Puerta de Golpe.	
	Leaves Puerta de Golpe in a northerly direction.
0.7	Passes small lagoon to the left.
1.0	Small lagoon on the left.
1.2	Crosses Río Hondo; steep banks, 30 feet wide, gravel bottom, 2 feet of water. Runs through district of San Pablo.
1.7	Passes schoolhouse on the right, and crosses small arroyo.
2.2	Bends to the northeast and crosses Río San Pablo over 15-foot wooden bridge. Joins Pinar del Río—Consolación road about 0.7 mile from Consolación del Sur.
4.0	Consolación del Sur.

ROAD No. 98.**FROM GUANE TO GUANE—LA CANA ROAD.**

General direction: NW. Distance: 9.9 miles.

IN GENERAL.

A good wagon road for first 5 miles and a fair road the remainder of the distance. It runs through the cultivated land west of Guane and thence through the western hills. Hills are covered with a scanty growth of pine trees and grass. A few scattered houses in the cultivated section west of Guane. Practicable for wagons. No camping sites.

IN DETAIL.

Miles from Guane.	
	It leaves Guane on the Guane—Mántua road.
1.5	Leaves the Guane—Mántua road and branches to the northwest.
1.6	Wagon road branches northeast to a group of houses. Wagon road (Guane—La Cana road) branches north.
2.5	Descends 50 feet and crosses a small creek flowing south. Reascends 50 feet.

Wagon road branches northeast to Guane-La Cana road. Wagon road branches west to La Cana (part of Juan Gómez). Three houses at junction of roads in the western angle.	Miles from Guane.	2.9
Trail branches north to Guane-La Cana road.	3.5	
Ascends 100 feet.	4.1	
Trail branches northeast to Guane-La Cana road.	4.7	
Wagon road runs south to La Cana (part of Juan Gómez).	5.4	
Wagon road runs north to Guane-La Cana road.	5.6	
Descends 100 feet and crosses a small creek flowing northeast and reascends 100 feet.	5.8	
Descends 50 feet and crosses small creek flowing northeast. Reascends 160 feet. Main creek draining this section flows southeast about 0.5 mile northeast of road and parallel to it.	6.1	
Ascends 50 feet.	6.5	
Cart road branches south to Juan Gómez. Cart road branches northeast to Guane-La Cana road. Road turns north.	7.4	
Descends 50 feet.	8.5	
Joins Guane-La Cana cart road, which runs east and west.	9.9	

ROAD No. 99.

FROM GUANE—MÁNTUA ROAD AT TENERÍA TO THE MONTEZUELO—LOS ACOSTAS ROAD.

General direction: N. Distance: 5.2 miles.

IN GENERAL.

A good wagon road which becomes a small trail. Runs into the hills. Slopes are long and gradual. Practicable for wagons as far as it runs. Trail is narrow but distinct. No houses. No cultivation. Hills covered with short thin grass. No camping sites.

IN DETAIL.

Leaving Tenería between two creeks (2 houses in the northeast angle) it runs north into the hills.	Miles from Tenería.	
Ascends 150 feet; slope gradual.	1.3	
Trail branches southwest to Guane-Mántua road.	1.5	
Becomes a trail running northwest.	2.8	
Descends 100 feet, crossing a small creek flowing west. Reascends 50 feet.	4.3	

Miles from
Teneria.

- Descends 50 feet, and crosses a small creek flowing southwest. Reascends 200 feet.
- 5.2 Joins the Montezuelo-Los Acostas cart road, which runs southwest and northeast.

ROAD No. 1x.

TRAIL FROM GRAMALES TO FRANCISCO—MANAJA ROAD.

General direction: SW. Distance: 7.5 miles.

IN GENERAL.

The trail is rough and not practicable for carts. The grades are steep and the trail is rocky. The hills are covered with a scanty growth of pine trees. No houses and no cultivated land. No streams.

IN DETAIL.

Miles from
Gramales.

- The trail leaves the Gramales-Francisco road about 0.5 mile southwest of Gramales, near the second line of low hills.
- 1.2 Here it runs in a northwesterly direction to the top of the first ridge of high hills, where it is joined by a trail from the northeast out of the Gramales valley (about 1.2 miles from Gramales). It runs along the top of this ridge in a southwesterly direction, crossing peak after peak for about 5 miles.
- 3.0 A trail branches to the northwest and joins the Gramales-Baja trail.
- 4.0 A trail runs down into the Francisco valley to the tienda Francisco Central. Numerous lumber drags run down to the valley on the left.
- 5.0 Here the trail turns nearly due south and descends from a high peak to where it joins the Francisco-Manaja road (about 1 mile).
- 7.5 Length of trail about 7.5 miles.

ROAD No. 2x.

GUANAJAY—INGENIO SAN JOSÉ—GUANAJAY—CAIMITO CALZADA.

General direction: N. to San José, E. to Calzada. Distance: 3 miles.

IN GENERAL.

Practicable for bull carts and wagons in the dry season; impassable in the rainy season for wheeled transportation. Lined by wire fences for three miles.

IN DETAIL.

Road runs north from Guanajay over level pasture land. Miles from
Guanajay.

Ingenio San José. The road continues a little east 1.5 of north over cultivated fields.

Road dwindles into a trail. Trail continues north 3.0 for 0.7 mile, then turns east 1.5 miles to the old ingenio of Coronela, where it connects with trail which runs southeast and connects with road to Caimito on the Guanajay-Caimito calzada. At Coronela there is another trail running north and connecting with the Mosquito trail at Banés. At the ingenio of San José there is a trail running northeast along base of ridge, which branches at 1.5 miles from San José; one branch running north 1.5 miles and connecting with trail just described 1 mile west of Coronela; another branch runs east for 1 mile along ridge, then branches, one branch runs north 1.2 miles to Coronela, the other branch continues east 1.2 miles and connects with the road to Caimito. Another branch runs south, crosses end of ridge, descends to the old ingenio of San Gabriel and runs southwest to the Guanajay-Caimito calzada at a point 1 mile east of Guanajay. Total distance from point where trail joins calzada about 2.5 miles. These trails are all passable for pack trains and cavalry during dry season; during rainy season they would be practically impassable for horses.

ROAD No. 3x.**TRAIL CONNECTING THE MALAS AGUAS—ABRA ROAD AND MALAS AGUAS—PAN DE AZÚCAR ROAD.**

General direction: SW. Distance: 4.7 miles.

IN GENERAL.

A trail through hills covered with brush. Impassable for wheel transportation. No steep grades except one at Corralillo.

IN DETAIL.

Miles from a point
3.7 miles east of
Malas Aguas on
the Malas
Aguas-Abra
trail.

- 0.5 Crosses Río Morales just after passing a deserted farm. The river is 20 feet wide and 3 feet deep at crossing. Bottom muddy. Banks 6 feet high. The current is sluggish.
- 1.0 Ascent, hills, grade steep but short. Hill features irregular. Country uncultivated and covered with heavy undergrowth.
- 1.5 A trail to the left, connecting with the main trail 1 mile to the south at Corralillo.
- 2.5 Corralillo.—Small farming district. Upon entering the trail passes down steep grade through woods and brush.
- 3.0 Crosses Pan de Azúcar River. Afterwards turns south. Current moderate; banks 4 feet high; bottom sandy. Good camp sights; much grass.
- 3.2 Trail divides and turns southwest. Branch to east connecting with a wagon road.
- 4.2 Trail to the east.
- 4.7 Malas Aguas-Pan de Azúcar road.

ROAD No. 4x.

**ROAD CONNECTING PINAR DEL RÍO—COLOMA ROAD AND COLOMA—
MARCOS VÁZQUEZ ROAD.**

General direction: SE. Distance: 6.5 miles.

IN GENERAL.

Good dirt road through rolling country covered with bottle palms and scrub pines. Very sandy. No cultivation.

IN DETAIL.

Leaves Pinar del Río-Coloma calzada halfway between kilometers 6 and 7. Miles from Pinar del Río-Coloma calzada.

Small lagoon on left. This road is crossed by a 1.5 large number of unimportant wood roads. Passable for all classes of transportation at all times of the year.

Joins road Coloma-Marcos Vázquez 1.5 miles west of 6.5 the southernmost lagoon of Campantarras.

ROAD No. 5x.

**ROBLAR—JUNCTION OF ROBLAR-GUADIANA AND PIMIENTA-GUADIANA
ROADS.**

General direction: SE. Distance: 5.8 miles.

IN GENERAL.

This is the main north and south road of the western part of the island. A good sandy road the entire distance, passable by all kinds of transportation.

IN DETAIL.

Río Sálado, 10 feet wide, 0.5 foot deep; good ford.	Miles from Roblar.
Road to Punta Colorada to right.	1.6
Crosses Hato-Guane-Punta Colorada road at this point.	2.3
Two farms.	3.3
Creek, 8 feet wide, 0.5 foot deep; good ford.	5.0
Road joins Hato-Guane-Guadiana road at this point.	5.8
The country passed through is savanna land, pines, and palms.	

ROAD No. 6x.**ROAD CONNECTING SAN LUIS AND KILOMETER 13 OF THE PINAR DEL RÍO-COLOMA ROAD.**

General direction: NE. Distance: 8.7 miles.

IN GENERAL.

Very good dirt road through sandy, level country. Suitable for all classes of transportation.

IN DETAIL.

Miles from point
1.5 miles E. of
San Luis.

- Leaves Pinar del Río, San Luis road at brickyard 1.5 miles east of San Luis, running in an easterly direction. Succession of swamps along both sides of road for about 2 miles, passing Laguna Zanjaría.
- 3.7** Passes Laguna Santa María and Laguna Póveda on the left. These are large, deep lagoons, with good water, evidently fed by springs. Excellent camp grounds for a large force in this vicinity.
- 3.5** Branch road runs southeast to Palizadas, a distance of 4.2 miles, through sandy, uncultivated country, crossing Arroyo Hicacos at the end of the first 2 miles. This branch road joins another road 1 mile west of Palizadas. Direction of other changes to north of east.
- 4.5** Crosses two branches of Arroyo Hicacos. Crosses Pinar del Río-Palizadas road.
- 6.2** Road here turns northeast.
- 6.5** Small lagoon on left.
- 6.7** Crosses Río Guamá; good ford, 20 feet wide, gravel bottom, water in dry season 1.5 feet deep.
- 7.0** Crosses small arroyo and passes through a large vega.
- 8.7** Joins the calzada at kilometer 13.

ROAD No. 7x.

TRAILS BETWEEN VIÑALES—PILOTOS ROAD AND THE SAN ANDRÉS ROAD (VIA ARROYO DE AGUA, LA LEÑA AND LA JICOMA) AND CONNECTING THE VIÑALES, SAN ANDRÉS, AND PILOTOS VALLEYS.

IN DETAIL.

Trail No. 1.—A trail leaves the San Andrés-Pilotos road about 1 mile out of San Andrés and runs in an eastern direction over level ground for about 3 miles, where it joins the San Andrés-Caiguanabo wagon road near a small stream. Length of trail, 3 miles. The Pilotos-Piñalillo wagon road runs through Piñalillo for about 0.2 mile to the foot of the high hills, where it divides into two trails, one running up the first ridge and the other up the second ridge.

Trail No. 2.—The first ridge trail leads over the first ridge east from Piñalillo and runs in a northwest direction for about 3.5 miles. It then turns to the northeast for about 2 miles and from there about 0.5 mile northwest, where it joins the Viñales-San Andrés trail. Length of trail, 6 miles.

Trail No. 3.—The second ridge trail leaves the main road and runs northeast for about 1.5 miles to the summit of the second ridge east of Piñalillo. It then runs northwest for about 2.2 miles and from this point about 0.5 mile nearly due north, where it joins the first ridge trail. Length of trail, 4.2 miles.

Trail No. 4.—A trail leaves the La Jicoma-Pilotos road about 0.5 mile from Pilotos and, running northeast for 2 miles, joins the Piñalillo second ridge trail near the foot of the second ridge. Length of trail, 2 miles.

Trail No. 5.—A road from Consolación del Sur crosses the La Leña-Pilotos road at La Jicoma. From here it continues in a northern direction until it reaches the Río Hondo (about 0.7 mile from La Jicoma). From the river the road is a mere trail running in a northern direction to the summit of the third ridge east of Piñalillo; distance from river, about 3 miles. The trail then runs in a northwesterly direction for about 3 miles, to where it joins the Piñalillo first ridge trail, about 0.5 mile from the Viñales-San Andrés trail. Length of road and trail from La Jicoma, 6.7 miles.

Trail No. 6.—A trail leaves La Leña and runs in a northern direction across the valley for about 2 miles to the Río Hondo. Crossing the river it runs nearly due north for 1.7 miles up a narrow valley between the third and fourth ridges east of Piñalillo to a house and

a small cultivated patch. Here it ascends the third ridge in a northwesterly direction for about 0.2 mile, where it joins the La Jicoma third ridge trail. Length of trail, 4 miles.

Trail No. 7.—A trail leaves the Arroyo de Agua-Pilotos road about 2 miles from Arroyo de Agua and running northwest for about 0.2 mile crosses a branch of the Río Hondo. It then runs along the stream in a northwesterly direction for about a mile, where it recrosses the stream and runs up over the fourth ridge of hills east of Piñalillo in a northwesterly direction for about 5.7 miles, where it joins the Viñales-San Andrés trail. Length of trail, 6.5 miles.

Trail No. 8.—A trail leaves the Piñalillo second ridge trail about 3.5 miles from Piñalillo and runs in a northeasterly direction for about 1.2 miles to the trail on the third ridge. Crossing this trail it continues in the same direction for about 0.5 mile to the trail on the fourth ridge. Crossing this trail it continues in the same direction, crossing the fifth ridge, for about 1.7 miles to the sixth ridge, where it joins the San Andrés-Arroyo de Agua trail about 2 miles out of Arroyo de Agua. Length of trail, 3.5 miles.

All these trails are pony trails averaging in width from 2 to 3 feet. They are very rough, as they invariably run over the crest of every hill, the majority of which are very steep and rocky. The hills are very much cut up. Near the Pilotos valley they are more regular, running in parallel ridges (northwest and southeast). From the Viñales valley to the San Andrés valley there is a long ridge running northeast and southwest. Between these ridges are independent hills having no regular formation. Usually there is water to be found in each gully between the hills, and small creeks drain the parallel ridges east of Piñalillo.

There is no cultivated land and no houses in the hills. The hills are covered with a scanty growth of pine trees and wire grass. The valleys between hills are usually heavily wooded.

The most important trail is the Piñalillo first ridge trail, which is used as a pack trail between Pilotos and the Viñales and San Andrés valleys.

Length of trail from Pilotos to San Andrés is 13 miles.

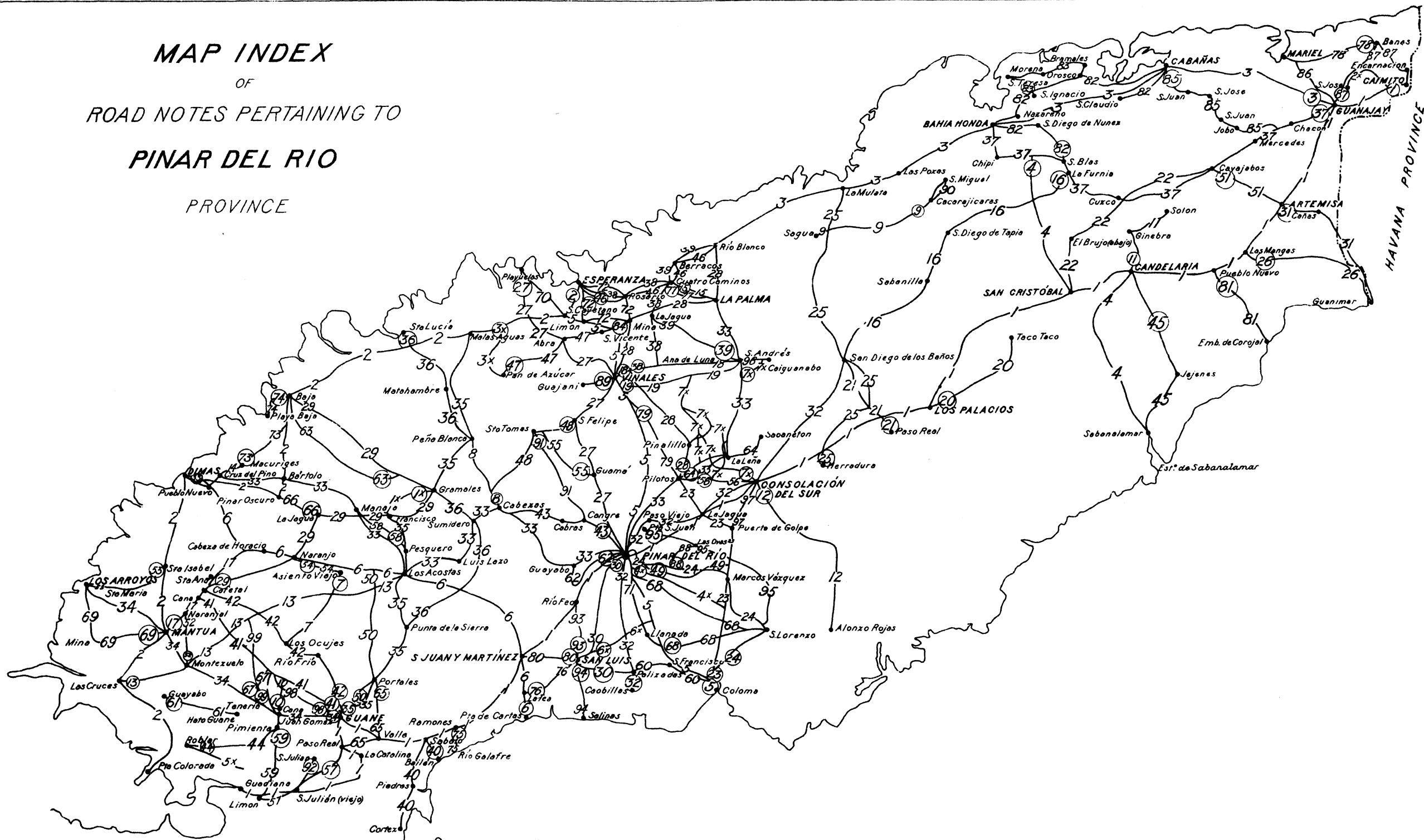
MAP INDEX

OF

ROAD NOTES PERTAINING TO

PINAR DEL RIO

PROVINCE



PROVINCE OF HABANA.

ROAD No. 1.

AGUACATE—BAINOA—JARUCO—MENDOZA—TAPASTE—JAMAICA—
HABANA—CAIMITO.

NOTE.—From Jamaica to Habana is a portion of what is known as Carretera del Sudeste.

General direction: NW. Distance: 65.9 miles.

IN GENERAL.

1. Aguacate to Bainoa.—From Aguacate to Bainoa the road is muddy in many places, and in others is 1 to 2 feet under water for long stretches. Impracticable at all times for wheels and difficult for horses.

Bainoa to Jaruco.—A good dirt road in the dry season, probably becoming impassable for wagons in the wet season. The soil is a red sandy clay, and does not seem to be so subject to deep mud holes as dirt of other colors.

2. Jaruco to Tapaste.—Practicable for light-loaded wagons and bull carts in the dry season. The fences are principally of stone.

3. Tapaste to Jamaica.—A new calzada, or macadam road, in excellent condition, practicable for all kinds of transportation.

4. Jamaica to Habana.—A macadam road of the first class, kept in excellent repair, practicable for all kinds of transportation during all seasons. Runs through hilly or rolling country, and at many places is commanded by hills at varying distances. The country along the road is cultivated and pasture land. Many stone fences.

5. Habana to Marianao.—There are two distinct roads from Habana to Marianao—one via the Cerro and Puentes Grandes, the other via Vedado and Camp Columbia. The road via Cerro is mostly cobblestone, but is the best road in case of an attempt to destroy communications. The road via Vedado is macadam its entire length, and consequently the best for an automobile. Both are practicable for all wheel transportation at all seasons. The distance is about the same by either road.

6. Marianao to Caimito.—A well-kept macadam road of the first class, running through a country partly undulating and partly rolling, with moderate grades. The cultivated ground is for the most part planted with pineapples. There are also a number of small banana groves; groups of trees and groves of palms in most places prevent a very extended view. Road winds almost continually. Practicable for all kinds of transportation at all seasons.

IN DETAIL.

Miles from
Aguacate.

- Leave Aguacate on a good dirt road running west for about 3.1 miles, when the road runs parallel to the railroad track.
- 3.6** The road then becomes a trail and passes through a series of fields and gates. The road passes over swampy country (Laguna de Reloz) on south side of railroad and reaches the old hacienda of Manajai, where there is an abandoned side track. The road passes through the lagoons of Manajai (or of Tibotibo) where the road is covered with 2 or 3 feet of water. The road now runs northwest and becomes a trail.
- 4.3**
- 7.3** Enter Bainoa, after passing the old cafetal of Coronel Soto on the right. Leave Bainoa, going west, passing on the left the lagoon of Fabelo.
- 11.1** Pass through ingenio of Carmen to avoid the swamp of Páila, through which the road passes.
- 13.6** Jaruco. Leave Jaruco on calle Tacón.
- 13.7** Cross wooden bridge over railroad. A road branches southwest to Casiguas.
- 14.0** A road branches northwest. The road runs southwest.
- 14.4** A road runs west to Pedro Martin and La Catalina. Country high and level.
- 14.9** Lagoon north side of road.
- 16.5** Lane branches northwest.
- 16.8** Lagoon on west side of road.
- 17.0** The road runs southwest. A road branches southwest to San José de las Lajas.
- 18.1** Road passes along foot of low, round hills to north. Land south cultivated.
- 18.2** The road runs west and is winding.
- 18.9** The road runs southwest. A road runs southeast to La Catalina.
- 19.4** Cross dry river bed and run northwest. Road rocky, with bushes on all sides.

The road runs along foot of hills; bushes and palms; rocky.	Miles from Aguacate. 19.9
A road branches southwest through a gate leading to spring; road rocky.	20.4
Pass caves of La Jáula and El Indio.	20.6
Leave pass between hills and enter wooded and pasture land.	21.2
Road sunken for 200 yards.	21.3
Bodega Mendoza (Tapastillo). From here there is a road directly east to Jaruco, north of the one just passed, which crosses a country known as "La Escalera de Jaruco," and passes the cafetal de D. Gabino, sitio de Navarro, sitio de Bestra, La Piedra del Mulato, and La Vigía. Leave Mendoza going west. Lomas de Pache to the north.	21.8
A lagoon on north side of road.	22.1
The road runs west. A road branches northeast through hills to Campo Florido.	23.1
The road runs southwest along foot of Lomas de San Francisco Javier.	23.2
Lagoon on north side of road.	23.3
Pass old cafetal of Santa Ana. Loma de la Jáula to the south.	23.9
A calzada branches south to San José de las Lajas and Jamaica.	24.4
Enter town of Tapaste. Leave Tapaste on the calzada which runs south from the plaza. This road gradually turns west, traveling on the arc of a circle until it reaches Jamaica.	24.4
A macadam road branches south and joins the Habana-Güines calzada at San José de las Lajas. This should be taken to go south toward Güines.	26.6
Road reaches Jamaica on the Habana-Güines calzada at 16.5 miles from Habana.	28.4
Take Habana calzada. Hills command road from both sides.	29.4
Hills to left; very bushy. (Loma Canoa and Loma Itabo.)	29.9
Level country. Stone walls on both sides of road. High hills close in on road.	30.4
A dirt road branches to east to Tapaste. Lagunas, San José, la Sierra, and Sabanilla to the east.	31.6
Crossroads. A macadam road runs southwest to Managua. A dirt road branches northeast to Tapaste. This point called Cuatro Caminos or Tienda de la Ceiba.	31.9

Miles from
Aguacate.

- 32.9** Cross stream called Matamoros. Laguna Matamoros to the east. Crossing known as Punta de Arango. Camp site. Cross small stream over stone culvert.
- 33.4** Good camp site; water and pasture.
- 34.4** Crossroads. Roads branching southwest to Managua; road northeast to Santa María and Tapaste.
- 34.9** Electric railroad close to north side of road. Crossroads. Road northeast to Santa María; road northwest joins a road to Managua.
- 35.9** Town of Cotorro. Macadam road northeast to town of Santa María del Rosario.
- 36.0** Crossroads. A road branches north to Guanabacoa and one to Managua.
- 37.9** Country level.
- 38.4** A road south. Pass through a 20-foot cut.
- 39.4** Pass through town of San Francisco de Páula. Hills overlooking town.
- 39.9** Deep cut 100 yards long.
- 40.1** Cart road southeast to finca el Palmar.
- 40.4** A road branches east to Guanabacoa. High hills southwest commanding road.
- 40.6** Tienda el Lucero.
- 40.9** High culvert.
- 41.1** Cross Loma Sapote.
- 42.0** Bridge of Luyanó, which is the edge of Habana proper. From this point a calzada runs east to Guanabacoa.
- 44.9** The Palace, Habana. Leave Central Park, Habana, going south along the Prado. Pass Colón Park and turn west-southwest along the sides of the park on Príncipe Alfonso or Monte street. Follow this street, along which runs the Cerro street cars. The street runs in a generally southwestern direction and is slightly winding.
- 47.7** Road forks. Follow the right-hand branch to the west. (The road which branches south-southwest at this point leads to the waterworks of Habana, 0.5 mile distant, and to the Vento Springs, 7 miles distant. The street cars on this road run two blocks to Palatino Park.)
- 48.1** Reach end of Cerro street-car line and pass electric-car barns.
- 48.2** Crosses Marianao railroad and turns southwest.
- 48.4** Crosses tracks of U. H. R. R. at Ciénaga station. Country poor. Hills close to right of road. Cultivated open land to left.
- 49.7** Pass village of San Diego and cross Almendares River. Here are two solid masonry bridges. No fords in the

vicinity. Pass village of Puentes Grandes or Puente de Cañongo up a moderately steep grade. Miles from Aguacate.

Turn southwest and run 1.5 miles through Quemados to plaza of Marianao. 50.1

Plaza. Leaves Marianao from in front of the Palace at the 9-kilometer post from Habana, running west along the main street. Leaving the edge of the town, it descends and crosses a deep gulch on a solid masonry bridge with arches. Bridge about 150 yards long. Having crossed the bridge, the road passes through the village of La Lisa, which is separated from Marianao by the deep gulch in which flows Río Marianao. 51.7

Crosses the Marianao steam railroad, which runs to Hoyo Colorado. 52.9

A lane branches north which leads to the sugar mill Quijano and the coast. Road running southwest, country slightly undulating. Stone fences. Electric and steam roads running about 200 to 400 yards southeast of the calzada. 53.1

Lane branches north. 53.7

Passes the well on top of a ridge which supplies Arroyo Arenas with water. Descend a moderately steep grade to a stone arched bridge, 140 feet long, over Arroyo Arenas bed with stagnant pools of water. This is Puente de las Casas. Ford would be easy just north of the bridge. Seventy yards to the southeast is the concrete bridge of the steam railroad over the same gulch. 54.5

Town of Arroyo Arenas. Water from a well near the calzada northeast of town. The steam railroad and the Guanajay electric road cross at this place. A macadam road branches south from this place to Wajay and the Vento waterworks. Leaving Arroyo Arenas country becomes more rolling and brushy, with many pineapple patches. Road winding. Cross Arroyo Santa Cruz. 54.8

Reaches town of Punta Brava. A calzada branches south from this place to Guatao. At the western edge of Punta Brava the road crosses a small swampy stream (Arroyo Solomé) by a concrete bridge. Arroyo also called Bauta Grande. Ford to the north easy in dry season. 57.9

Crosses a small swampy stream by a concrete bridge, 20-foot span, 12 feet high; ford difficult. Arroyo Blanco. 58.6

Electric railroad approaches the calzada and parallels it to the southeast. 59.1

A dirt road branches south. Country becomes more level and cultivated. 59.2

Miles from
Aguacate.

- Crosses sluggish stream (Arroyo Baltazar or Bauta) on
60.4 a concrete bridge, 15-foot span. Ford difficult.
61.9 Reaches town of Hoyo Colorado. Is the terminus of the Marianao steam railroad. A calzada branches north to the coast of Baracoa.
62.8 A well-traveled road branches north toward the coast.
63.8 A private calzada branches north to the burned sugar mill Encarnación, about 2 miles. From Encarnación a narrow-gauge road runs about 5 miles to the sugar mill Lucia and from Lucia about 2.5 miles to the small port of Banés. Cross Arroyo Tumbacuatro.
64.7 A low-lying ridge of wooded hills about 80 to 100 feet high Sierra de Anafe commences to the north of the road running close and parallel to the road. About 100 yards to the south is the northern point of the Laguna Ariguanabo. Electric railroad close to the road to the south.
65.9 Town of Caimito. From this point the road continues west-southwest to Guanajay, Mariel Bay, and Cabañas Bay. A macadam road branches south from Caimito for 4 miles to the town of Vereda Nueva and the station of Vereda Nueva on the Guanajay branch of the U. H. R. R.

ROAD No. 2.

COJÍMAR—BOCA DE JARUCO (ENSENADA DEL FRAILE)—SAN MATÍAS (ALMACENES DE JARUCO)—SANTA CRUZ DEL NORTE—BOCA DE JIBACOA.

General direction: E. Distance: 35 miles.

IN GENERAL.

1. Cojimar to Boca de Jaruco.—A trail which connects the points along the beach and is either sandy or rocky its entire length. It is not practicable for wheels, but is practicable for animals at all seasons, except that in the wet season the mouths of the rivers are often difficult to ford. In the dry season these mouths are either closed with a sand bar or are easy to ford.

2. Boca de Jaruco to San Matías.—A rough mountain road until it reaches the inland valley, where it becomes the usual unimproved dirt road. Practicable for wagons and bull carts in the dry season except that the descent from the mountain into the valley is very steep. The mountain section of the road is rocky and probably practicable at all seasons.

3. San Matías to Santa Cruz del Norte.—A dirt road running along the coast range of mountains. A steep trail from San Matías up to the top of the hill (16 miles). From the top of the hill to Santa Cruz

a good dirt road practicable for wagons and bull carts in dry season and probably passable even in the wet season. There is an old graded road from San Matías to the top of the hill and the cut in the side of the hill can be seen for several miles around the town. This road is not used and is overgrown with brush, but could be made practicable with very little work.

4. Santa Cruz del Norte to Boca de Jibacoa.—A good dirt road with rock foundation except for a short distance east of Santa Cruz. Runs along the flat between the coast range and the sea, and passable for wagons and bull carts at all seasons, except that only animals can be taken across the Jibacoa River. The ford of this river is changeable and often bad, and should not ordinarily be undertaken without a guide.

IN DETAIL.

Goes east from Cojimar fording the Cojimar River on the bar of sand that forms beyond the mouth. This ford varies and should not ordinarily be undertaken without a guide. Trail runs east on the beach itself or a few yards from it. Miles from
Cojimar.

Passes the finca of La Noria which can not be seen from the trail on account of the brush. Hills, Monte Villarreal and Monte Blanco, to the south. 1.2

Reaches the Boca de Bacuranao where the mouth of the river is closed with sand in the dry season. Crosses the river to the village of Playa de Bacuranao. Leaves the Playa de Bacuranao and moves through the brush near the shore for 0.6 miles. 3.7

Emerges from the brush and goes along sandhills called Monte Barrera, overlooking the beach. 4.3

Crosses closed mouth of River Tarará. 5.2

Small bay in the coast. 5.5

Trail moves along the edge of the water so as to have a hard footing to 8-mile point, where the beach goes very close to high cliffs. 6.2
8.0

Small river barred with sand (Boca Ciega), river called Río Justiz. 8.9

Follows beach past Laguna Amarilla (or Cobre) to the north on beach, to River of Guanabo and the village of Playa de Guanabo. 10.2

Trail follows back to village of Playa del Rincón. From Rincón trail follows along the beach, sometimes along the edge of the water, and at other places in the brush near the beach. Small hills, Montes de San Francisco, to the south. 12.0

Miles from
Cojimar.

- Reaches the Boca de Jaruco. Leaves the center of
- 18.2** town, going west ascending hill.
- 18.5** Turns southwest (road which continues west goes to Rincón, Guanabo, and Campo Florido). Road becomes a winding trail but maintains a general southern direction through thick brush.
- 21.5** Turns southeast and descends a steep rocky hill emerging from woods.
- 22.2** Reaches bottom of the hill and crosses the valley in a southeasterly direction through a swamp that is partly filled in with rocks to make it passable.
- 22.9** Enters a lane between wire fences.
- 23.4** Emerges from lane, turns southwest along river bank for about 218 yards, then turns southeast and crosses
- 23.6** Arroyo San Francisco, a good-size creek of clear water (the road which continues southwest from this point goes to San Miguel and Campo Florido). Road runs east along foot of grassy hills, open pasture lands to the north.
- 24.6** A road branches south into the hills going to Jaruco.
- 25.2** Crosses River Jiquiabo (Jaruco) through deep cuts in the bank—a clear creek. About 50 yards beyond river the road turns north (road running southeast from this point goes to San Antonio and Jibacoa). Road runs south through pasture lands to the ruins of the town of San Matías (Almacenes de Jaruco). There is a shorter
- 26.7** trail from Boca de Jaruco to San Matías going along the eastern side of river, but in order to follow this trail it is necessary to swim the horses across the river at La Boca. Small boats can be obtained to convey persons. Following this trail the distance to San Matías is about 2.4 miles. Leave San Matías going north and ascend a steep trail to a small house, which can be seen
- 27.3** on top of the hill from San Matías. Pass through a gate and turn east (the trail which goes northwest from this point goes to the Boca de Jaruco). Goes east about 218 yards and enters a road running north and south. Turns south (the road going north also goes to Santa Cruz by way of the low ground north of the coast range). Road soon turns east and winds along top of hill with a general easterly direction. Good road.
- 27.9** Ground becomes cultivated on both sides.
- 28.7** School house and three houses. Hill called the Sierra del Arzobispo or Sierra de los Pobres.

Road emerges from lane and continues as a trail through cultivated fields without fences. Miles from
Cojimar.
29.0

A trail enters from the northwest. Ruins of an old stone wall. Trail divides near this point, one going east and one northeast. Follow the northeast trail, gradually approaching the northern crest of coast range. **29.1**

Reaches a point overlooking Santa Cruz, the cultivated fields below, and the sea. Descends the hill through a deep cut by a steep grade and follow along the foot of the hills, cultivated ground to the north. **30.4**

Reaches Santa Cruz. To go to Santa Cruz via the coast road turn north, gradually descend the mountain for about 0.9 mile, then turn east and follow near the foot of the hills through a number of gates and cultivated plots. Rejoin the above-described road where it descends the hill about 1.2 miles west of Santa Cruz. Leave Santa Cruz del Norte. **31.6**

Cross Arroyo Chipiona. Pasture land on both sides. **31.7**

Low land. **32.6**

Road passes down a steep point of land, crosses river on sand bar. Boca de Jibacoa. **35.0**

ROAD No. 3.

HABANA—MANAGUA—SAN ANTONIO DE LAS VEGAS—DURAN—
BATABANÓ.

General direction: S. Distance: 31.7 miles.

NOTE.—During 1908 a metaled road was completed from San Antonio de las Vegas, through Duran to Batabanó.

IN GENERAL.

1. Habana to Duran.—A very good macadam road which runs almost the entire distance over high rolling or hilly country, which is about half cultivated and half bushy pasture land. Country contains many groups of trees and groves of palms, and may be said to be half open. Due to the hilly nature of the country the road in many places is commanded by elevations of varying altitudes and ranges. Many stone fences.

2. Duran to Batabanó.—This section is a good dirt road in the dry season, practicable for all kinds of transportation. It is the intention to make this section of the road into a calzada, and the work is now being carried on (1907.) The calzada will not follow the dirt road

here described, but will be carried in a straighter line across the fields and plantations.

Miles from
Habana.

IN DETAIL.

- 3.3 Leaves the Habana-Bejucal calzada about 300 yards south of the 5-kilometer post; going south.
- 3.5 Road turns southeast. A road branches south which leads to Guinera and El Calvario.
- 3.7 The road runs along the edge of a ridge, which gives a view to the north of the outskirts of Habana.
- 4.3 Reaches village of Mantilla. Road turns south and gradually ascends Loma del Tumbadero, at the top of
- 5.0 which is the 8-kilometer post. This hill gives a view of Jesús del Monte, Loma de Mazo, and other outskirts of Habana. Road passes hill through a cut in the rock 150 yards long and 30 feet deep. Road descends and then
- 5.6 ascends by a steep hill to the town of Calvario. Town built along the calzada. From this town a road branches east to San Francisco and one branches west to Arroyo Naranjo. Passing Calvario the road descends gradually, giving a good view of the country to the south. Country becomes more level and slightly rolling.
- 7.4 Reaches Chorrera de Calvario. There are four wells at this place; water good and abundant. A road branches east to San Francisco de Paula.
- 7.9 Crosses Río Almendares, or Chorrera, on a steel truss bridge 88 feet long, 35 feet high, concrete abutments. A ford 4 feet deep in dry season to east of bridge. One hundred and fifty yards from bridge the river narrows to 12 feet or 15 feet. On the calzada south of the river is a village of 6 or 8 houses and a store, called El Puente de la Chorrera.
- 9.3 Reaches village of Guásima. Well water. A road branches west to Calabazar.
- 12.0 Reaches town of Managua, located at foot of Loma Almenara. A road branches east to Nazareno and a calzada to Cotorro. Leave Managua going southwest, approaching a ridge of wooded hills, Loma Alluza, which command the town and the road.
- 12.3 Enters hills and ascends turning southeast and passing back of the ridge which commands Managua. This ridge also commands this part of the road for some distance at about 800 yards range.
- 13.8 A lane branches northeast to Managua.
- 14.3 Road turns south, ascending and winding.

Passes steel truss bridge over Río Ojo de Agua 56 feet long.	Miles from Habana. 14.6
Passes Volcan. Old ingenio of same name. A store and 1 or 2 houses. A road branches east to Babiney.	15.1
Reach top of upgrade through a cut 15 feet high and 150 yards long. Road running southeast.	15.5
Steel truss bridge 15 feet high, 25 feet long, over dry arroyo.	15.6
Passes a store called El Rayo. Brush and hilly pastures on all sides.	15.8
Road turns west southwest and descends along the side of a palm-covered hill; brushy pastures on both sides. Road gradually turns south, still descending.	16.1
Reach the end of the finished calzada. From this point for 1.5 miles the road has been prepared for the stone and the work is now being completed.	17.8
A bridge is being built over a dry arroyo, which will be about 50 yards long and 30 feet high.	18.1
Reach the finished calzada again, which continues to Duran.	19.2
A road branches west which leads to Bejucal. The calzada approaches a ridge of high land.	20.5
Crosses steel bridge, 12 feet high, 53 feet long, over a stream of stagnant water called Río San Juan Bautista.	20.7
Reach town of San Antonio de las Vegas. A narrow-gauge railway connects this town with the railroad station at Duran. The calzada goes south from San Antonio and winds through a level, brushy, pasture country to the station of Duran. The macadam road continues 0.5 mile south of Duran and ends. It is the intention to complete this road to Batabanó.	22.1
A large well 50 yards to the right of the road; good water with constant flow; pasture land; camp site in dry season.	25.5
A gate to left of road with two large pine trees. Enter main road at this point, leaving road which ran across fields from ingenio La Julia.	27.0
A dirt road branches off to west.	27.5
Cuatro Caminos; crossroad with one store. A road runs from here northeast to Melena.	28.2
A road from this point runs to San Felipe.	28.9
Enter old town of Batabanó from the north.	30.0
Pass waterworks to east of road, along a calzada.	31.3
Enter calle Real of Playa de Batabanó.	31.7

ROAD No. 4.**HABANA—BEJUCAL—QUIVICÁN—BATABANÓ (CARRETERA DEL SUR).**

General direction: S. Distance: 32.5 miles.

IN GENERAL.

1. Habana to Quivicán.—A calzada of the first class which runs from the Jesús del Monte suburb of Habana over a high rolling country, winding, and with moderate grades, as far as Bejucal. From Bejucal to Quivicán the calzada runs through a level country. The entire road is bordered by land that is about half cultivated and half pasture land, and there are so many groves and groups of trees that the country may be said to be half open. Stone fences are numerous along the entire length of road. Practicable for all kinds of transportation at all seasons.

2. Quivicán to Batabanó.—A road that is little traveled north of finca Pedrosa, 1.8 miles from Batabanó. Road is much overgrown with brush and contains many places which must be impassable in wet season. Runs through a country half cultivated and half bushy pasture land. Practicable for bull carts and light-loaded wagons in the driest part of the year. Impracticable for wheels in wet season.

IN DETAIL.Miles from
Habana.

- Leave Habana going along the Jesús del Monte calzada, or street, following the line of the Jesús del Monte cars of the street railroad. Rises to the top of a ridge between the hills Loma de Luz and Loma de Limón, and following
- 2.5** top of the ridge reaches end of the car line at Vívora, where a car barn is located. About 300 yards west of Vívora is the crest of Loma de Luz, with a large concrete water tank and a wooden blockhouse. To the east of Vívora extends a series of hills crowned with earthworks. These works were part of the Spanish defenses in 1898. As far as Vívora the route is over a city street, with both sides entirely lined with houses. On passing Vívora the road becomes a country turnpike. A short distance south of Vívora crosses the electric railroad tracks to Guanajay. Road runs south, winds continually, but maintains a general southern direction. Country high and rolling, with many hills.
- 3.1** Arroyo Apolo, village built along the road.
- 3.2** A macadam road branches southeast to San Antonio de las Vegas and Duran. This road is to be completed to Batabanó.
- 3.7** The road is commanded by a ridge which lies about 1,000 yards to the east and the road approaches a strong

position to the south in the form of a ridge crossing the road (Loma de San Juan).	Miles from Habana.
	4.0
Reaches crest of ridge. A good view can be had from this place of the country north to Vívora. Puentes Grandes and Marianao can also be seen from this point.	4.0
Village of San Juan de la Niña Zuazo. Passing San Juan, road rises and passes through a short cut 12 feet high.	4.4
A road branches east to El Calvario and San Francisco de Paula. This is the first road crossing from one calzada to the others south of the street which skirts Habana Bay.	5.4
Arroyo Naranjo. Leaves Naranjo going southwest and descends gradually through bushy pasture land to the town of Calabazar, crossing the Almendares (or Chorrera) River at the edge of the town by a heavy stone culvert called Puente de Cristina (or del Calabazar). Ford of river west of bridge easy in dry season. Calabazar (or Nueva Cristina). Leaves Calabazar going southwest and west, crossing a small swampy creek on a stone culvert called Puente de Arroyo Jíbaro; ford would be difficult. Road runs through bushy land.	6.2
	7.5
Small town of Rancho de Boyero. Road turns more south and country becomes more level.	9.0
Enter Santiago de las Vegas, passing the experimental farm. Leaves Santiago going west and southwest.	11.2
A ridge, Sierra del Bejucal, 700 yards to the east, commands the road.	12.5
Reaches town of Rincón de Calabazas (or de Santiago). Leaving Rincón, the road runs southeast along the foot of Bejucal ridge, the crest of which is from 300 to 400 yards north of the road.	13.5
A calzada branches east and ascends the hill to the Maceo Monument.	14.4
Crosses bridge over Río del Bejucal (or Río de Govea) and enters town of Bejucal.	14.5
Town of Bejucal. Road leaves Bejucal along calle Cuba passing the railway station and crossing the track of the United Railroad. Road running southeast and winding. Country level and cultivated, with many stone fences.	16.2
	17.0
A road branches northeast toward the hills.	17.7
A road branches west to Las Piedras.	18.2
Again crosses railway tracks.	18.3

Miles from Habana.	Road turns south.
18.5	Recross railroad of United Railroad of Habana.
19.4	Village of Buena Ventura.
19.5	A macadam road branches west and runs 2.2 miles to the town of Santo Cristo de la Salud.
21.2	End of macadam road. From this point to Quivicán the road has been graded and the work of completing the calzada is now going on.
21.3	Large storehouse to east of road.
22.0	A road branches southwest from La Cruz to La Salud.
22.5	A road branches west to the finca of Ceiba del Conde.
24.4	Enter town of Quivicán along calle Emiliano Delgado.
25.2	A road branches east. A road west to ingenio San Agustín. Crossroads.
25.7	A road east.
27.0	Laguna de la Jai to west of road and a road running west to San Agustín.
29.2	A road west to San Agustín and east to Pozo Redondo.
29.7	A road west to Mora.
31.5	Finca Pedrosa.
31.7	Cross United Railroad at Quintana.
32.0	Pass cemetery. A road east to Pozo Redondo. From cemetery to town of Batabanó is an improved road.
32.5	Batabanó (calle Máximo Gómez).

ROAD No. 5.

BATABANÓ—CUATRO CAMINOS—GUARA—SAN ANTONIO DE LAS VEGAS—BEJUCAL—SALUD—GABRIEL—GÜIRA DE MELENA.

General direction: NW. to Bejucal; SW. to Güira de Melena. Distance: 40.3 miles.

IN GENERAL.

1. Batabanó to Guara.—An unimproved dirt road, passable for bull carts in wet season. Passes through level country, half cultivated. Fences principally of wire.

2. Guara to San Antonio de Las Vegas.—A rocky road very much disfigured by erosions. Land very little cultivated. Rock and wire fences. Practicable for bull carts only.

3. San Antonio de Las Vegas to Bejucal.—A rather rough trail, through hilly, half cultivated and half pasture lands; practicable for animals; bull carts could be used in the dry season, but with difficulty; trail is generally rocky, with a few mud holes in the low places; would be better than most of the unimproved roads in the wet season.

4. Bejucal to Santo Cristo de la Salud.—A macadam road which runs through a level cultivated country with many stone fences. Practicable for all kinds of transportation at all seasons.

5. Salud to Güira de Melena.—An unimproved dirt road running through a level country, half cultivated and half pasture lands with many stone fences. Road is rocky in many places, but it is practicable for wagons and bull carts in dry season. Probably practicable for bull carts only in wet season.

IN DETAIL.

	Miles from Batabanó.
Follow Batabanó-San Antonio de Las Vegas road to Cuatro Caminos, 4.9 miles from Playa de Batabanó.	
Leave Cuatro Caminos, going east through level country.	
Road becomes muddy. Bushy pasture on south side.	5.6
Turn northwest through cane.	6.2
Turn east.	6.8
Turn north through cane. (Road branches south to join road from Güines to Batabanó.)	7.5
Bushy pasture both sides.	8.1
Crosses dry bed of river, rocky bottom.	8.2
Level country; pastures on both sides.	8.7
Cross roads. (Road northeast to Melena del Sur.	9.2
Road southwest to Colonia and Lagia.)	
Thick palm grove on east side. Cane on west. Country level. Road still going north.	9.3
Turn northeast. Pastures both sides.	9.5
Turn north.	9.8
Road crosses bridge and joins road Guara to Duran and turns east into Guara at railroad crossing.	10.2
Leave Guara at north end of town and runs northeast through pasture land.	
Turn north through rocky land covered with thick brush.	10.3
Winds north.	11.5
Still hilly and bushy.	11.9
Road becomes very rocky and cut up. More open in the east.	12.7
Turn west. (Road continues north to San José de Las Lajas. Road runs east to Melena del Sur and Güines.)	13.1
Hilly; open pastures.	13.3
Turn north.	13.5
Turn west, large pasture to south. Bushy pasture to north.	13.8

Miles from
Batabanó.

- Road crosses river bed, Arroyo Coca. Stagnant water in pools.
- 14.7
- 15.8 Turn south. (Road runs north to Managua.) Very hilly and rocky.
- 16.2 Road branches south to Guara. Turn west.
- 16.3 Crosses dry bed of river; very rocky. Río San Antonio.
- 16.6 Turn south. (Road runs north to Mangua.)
- 17.7 Enter San Antonio de Las Vegas at blockhouse on calzada. Leaves San Antonio going north along the calzada. Half pasture land, with stone and wire fences.
- 18.0 Stone bridge, 15 feet long, 6 feet high, over dry stream (Río San Antonio, or La Culebra).
- 18.4 Descends a moderate grade, through a cut, 8 feet high, 100 yards long.
- 18.6 Stone bridge, 12 feet long, 10 feet high; dry ditch (Río San Juan Bautista).
- 18.7 Steel bridge, 30 feet long, 20 feet high, over a small stream (Río Hondo). Pasture land in the vicinity; good camping place. The destruction of the bridge would impede artillery and cavalry, because fording would be difficult. Royal palms are plentiful in the vicinity, and could be used to repair bridge, if destroyed.
- 18.9 Leaves the calzada and goes west over a dirt trail to the ruins of the burned ingenio of Seibabo. Goes north through the ruins.
- 20.3 Trail reaches the top of a ridge, turns west, and descends.
- 20.4 Two small streams of clear water.
- 21.4 Turns north over hills. Pasture with stone fences.
- 22.1 Turns northwest.
- 22.6 Turns north. A branch road goes west.
- 23.2 Turns northwest.
- 23.5 Reaches the asphaltum mines. From this point a private metaled road runs to Bejucal, over a hilly country with moderately steep grades. Road is out of repair, and rough in some places, but practicable for wagons at all seasons.
- 27.4 Reaches Bejucal. Leave the Habana-Bejucal-Quivicán road. Cross a concrete bridge 40 feet long over a dry river bed. Fords would be easy on both sides.
- 30.0
- 30.4 A road branches north and enters the calzada near Bejucal. Used by natives on ponies as a short cut.
- 31.9 A blind road branches northwest.

A road branches northwest which leads to Bejucal and connects with roads to San Antonio and Rincón.	Miles from Batabanó. 32.1
Town of Santo Cristo de la Salud. A road branches southeast from the edge of the town, leading to Quivicán. Leave Salud depot going south along the west side of the railroad track.	32.2
Turn southwest. A road branches south which connects with the Quivicán and Güira de Melena.	32.7
Turns south. A road continues west to a farm, and a road branches north which leads to San Antonio and Rincón.	33.2
Turn west by southwest. A road continues south and joins another road leading to Fajardo.	33.3
Turns east. A road continues west and connects with roads to Gabriel, Güira, and San Antonio.	33.9
Turns south.	34.2
A road branches east to Quivicán and Salud.	34.3
Turns west and runs 327 yards to ingenio of Fajardo. (A road continues south from 38.2 which turns west at about 38.7 and runs to Gabriel.) From Fajardo an improved road belonging to the ingenio runs southwest for about 1.2 miles to Gabriel. Leave Gabriel, going west.	36.2
Cross roads and turn south. A road continues west and joins the San Antonio-Güira calzada; a road runs north to San Antonio.	37.4
Turns west.	38.4
Turns south-southwest.	38.7
Cross tracks of Western Railway.	38.9
Turns west; a road runs east to Quivicán.	39.3
Crosses Western Railway.	39.7
Enters town of Güira de Melena.	39.8
	40.3

ROAD No. 6.

GÜINES—LA CATALINA—CASIGUAS—JARUCO—SAN ANTONIO DE RÍO BLANCO DEL NORTE—JIBACOA—CANASÍ.

General direction: NE. Distance: 37.6 miles.

IN GENERAL.

1. Güines to La Catalina.—An unimproved dirt road over a rolling country half cultivated and half pasture land with many stone fences; practicable for bull carts and for light-loaded wagons in dry season. Impassable for wheels in wet season.

2. La Catalina to Casiguas.—A level, unimproved road through cultivated land; stone and wire fences. Practicable in dry season for wagons and bull carts; in wet season for bull carts, with difficulty. This road connects with the Casiguas-Sabana de Robles road, 5 miles from Casiguas.

3. Casiguas to Jaruco.—A dirt road that is well traveled in dry season and shows signs of having been repaired, although there are many bad places in the road in wet season. Practicable for wagons and bull carts in dry season and for bull carts in wet season.

4. Jaruco to San Antonio de Río Blanco del Norte.—A fine, new macadam road which runs northeast from the railway station of Jaruco in a straight line, through land cultivated in cane, to the town of San Antonio.

5. San Antonio de Río Blanco del Norte to Jibacoa.—A very rough road to where it joins the San Matías-San Antonio road; muddy in places, even in the dry season; steep grades and many very rough, rocky places, practicable for animals; passable for bull carts, but with difficulty.

6. Jibacoa to Canasí.—An unimproved dirt road through a hilly country, half cultivated and half pasture land. Practicable in dry season for bull carts, with difficulty. Impassable in wet season.

IN DETAIL.

Miles from Güínes.	Leave Güínes.
0.6	Pass small irrigation stream, Río Fotuto, running south. Camp site.
1.2	Road running north (La Bija).
2.1	Ruins of old ingenio La Cruz 300 yards to east of road.
3.2	Bad muddy place 80 yards long in road.
3.7	Pasture land; slope downward. Road a series of trails.
4.0	Cross Río Mampostón (Mayabeque).
4.2	Cross road leading from finca Ayala to switch on railroad called Chuchu Ayala.
5.4	Pass large pasture. Camp site; spring water.
5.4	Cross bridge 20 feet long over small creek. Cement abutments and steel beams. A road branches to the left after crossing bridge and leads to Moralito.
6.2	Pass a large spring. Pass a small lake 100 yards to right, Laguna Ojo de Agua.
6.8	La Catalina. Leave La Catalina on calle Máximo Gómez going northeast to bodega Los Mameyes and turns northwest.

	Miles from Güines.
Turns northeast. (Road continuing northwest joins road from Casiguas.)	6.9
Road turns north. Muddy.	7.4
Turns east.	7.9
Northeast. (Road south joins Madruga-Catalina road.)	8.1
Store of Lechuga and three houses and one well. (Road east to pasture of Fundora.) Road leaves Lechuga going north.	9.2
A small lake to east of road, Laguna Santa Clara.	9.4
Pasture on both sides.	9.9
Bad muddy place in road.	10.5
A road branches west and joins Casiguas-Sabana de Robles road.	11.1
Joins Casiguas-Sabana de Robles road. Take this road west to Casiguas.	12.0
Casiguas. Leaves Casiguas going north along calle Real through pasture lands on both sides, with stone fences.	17.0
Ruins of stone house at a road which branches east to Bainoa.	17.6
Crossroads. (Road east ends in some fincas and connects at about 108 yards with a closed road north toward Carmen and San Antonio. Road west through gate joins road to Tapaste.)	18.1
Road turns west for 108 yards and then turns north. Wooded hills to southwest of this point, about 150 feet high, command road. Bad place in road, and travel is along pasture east of road.	18.2
Crossroads. (Road east runs 0.3 mile. Joins San Antonio-Casiguas road. Road west joins road running to Tapaste.) Country more cultivated.	19.0
Lake to east of road lined with palms. Road turns west. Cane fields both sides.	19.7
Road turns north. (Road continuing west connects with a short road running into Jaruco.)	20.1
Road turns northwest. (Road continuing north runs 0.6 mile and joins Jaruco-Bainoa road about 0.6 mile east of Jaruco.) Joins road going north from Tapaste to Jaruco.	20.2
Enters Jaruco on the Paradero calzada. Leaves the railway station of Jaruco running northeast.	20.9
The road makes a slight curve to get around a well.	22.8

Miles from
Güines.

- 23.4** Rises gradually to the higher ground on which San Antonio is situated. This point gives an extended view toward Jaruco.
- 24.7** Reaches the town of San Antonio de Río Blanco del Norte. Leave San Antonio de Río Blanco del Norte.
- 26.9** Road runs through narrow cut in rocks made by erosion at San Matías-San Antonio road.
- 27.5** A road runs north to Santa Cruz.
- 29.2** Cross Río Santa Cruz; clear stream; pasture land near.
- 29.3** Road sunken in soft rock. Road runs east, winding, stone fences.
- 30.0** Crossroad. A road runs west to Caraballo, south to Aguacate and Mamey Duro.
- 30.9** Descend from a plateau.
- 31.5** Cross small stream.
- 32.1** Cross small, steep hill.
- 32.6** Road runs north over swampy ground.
- 32.7** Cross bridge over River Jibacoa; good water. Jibacoa. Leaves Jibacoa going east from street back of church.
- 33.3** Road branches south to Mamey Duro and Aguacate.
- 33.4** Crosses Arroyo Blanco (Paso de la Ceiba).
- 34.2** Water hole south of road. Good camp, except wood.
- 34.5** Burned sugar mill Calderón; road turns northeast.
- 34.8** Road passes over ridge.
- 35.1** Road turns east. (Road continuing northeast goes to burned ingenio Armentero.) Passes through a large wooden gate. Bad mud hole.
- 35.4** Passes the end of a standard-gauge railroad, running through Villaroel to Almacenes.
- 36.4** Passes over steep hill of Cansa Vaca. Railroad 250 yards to right.
- 36.7** Railroad crosses the road to the north.
- 37.0** Railroad turns northeast and runs to sugar mill of Villaroel.
- 37.3** Road turns south. (Road north from this point to Villaroel.)
- 37.6** Cross Arroyo Marcos Sánchez and enter town of Canasí.

ROAD No. 7.

**ALQUÍZAR—SAN ANTONIO DE LOS BAÑOS—RINCÓN—BEJUCAL—
MANAGUA—NAZARENO—CUATRO CAMINOS.**

General direction: NE. Distance: 36 miles.

NOTE.—During 1908 a metaled road was constructed connecting Managua and Lechuga, and Alquízar and San Antonio.

IN GENERAL.

1. Alquízar to San Antonio de los Baños.—An unimproved dirt road, rather rocky, running through well-cultivated country, fences of stone and wire.

2. San Antonio de los Baños to Rincón.—A second-class calzada which passes through slightly rolling country, about one-half under cultivation. The calzada winds in a general northeasterly direction; fences mostly of stone. Country cut up into small fields by stone fences.

3. Rincón to Bejucal.—Is the Habana-Batabanó calzada.

4. Bejucal to Nazareno.—An extremely rocky road over hilly country, principally pasture land. Practicable for light-loaded wagons and bull carts in dry season and due to the rocky nature of the road probably in wet season.

5. Nazareno to Cuatro Caminos.—From Nazareno the first 3.7 miles is an unimproved dirt road, very hilly and rocky near Nazareno, but becomes better as it goes north, and is a very good road when it enters the Habana-Güines calzada near finca Santa Amelia. Up to this point the road is practicable for bull carts and light-loaded wagons at all seasons. The fences are stone.

IN DETAIL.

	Miles from Alquízar.
Leaves Alquízar on calle Antonio Maceo running north.	
Avenue of palms.	0.6
Road branches north to Ceiba del Agua.	.7
Road branches west to Artemisa.	1.5
Destroyed ingenio 540 yards to east.	3.1
Road branches west to Ceiba del Agua. Large bodega	3.9
on west side of road.	
Road branches east to Güira de Melena.	4.9
Turn northeast.	5.0
Turn north.	5.7
Road becomes very rocky.	6.2
Turn northeast. Low wooded ridge to northwest.	6.9
Turn north. Country becomes slightly rolling.	7.0

Miles from
Alquízar.

- Crosses Western Railway of Habana running east and west. Turn west; runs parallel with railroad.
- 7.4 Road branches south, crossing railroad.
- 7.9 Turn northeast, leaving railroad and enter San Antonio de los Baños. Leave San Antonio de los Baños by calle Montegán, passing Antonio Vivanco monument. Country to west very hilly (Loma del Herrero).
- 9.0 A road branches south. A road branches east to Bejucal and Govea.
- 9.5 A road branches east.
- 10.5 Govea.
- 11.5 La Ceiba. A road south.
- 12.0 Cross steel bridge (130-foot span) over dry bed of Río de Govea. (This bridge is a substitute for the old masonry bridge.)
- 12.2 Cross a small steel bridge over a mud hole joining two lagoons, on both sides of the road. The lagoon on the west side is dry during the dry season.
- 12.5 Cross small steel bridge over mud hole. Cross U.H.R.R. at depot. A road runs west to Santiago de Las Vegas.
- 15.0 Join the Habana-Bejucal calzada at Rincón de Calabazas (or de Santiago). For notes covering the calzada from Rincón de Calabazas to Bejucal, *see* Habana-Bejucal-Quivicán-Batabanó (generally known as the Carretera del Sur) from 13.5-mile point to 16.2-mile point.
- 17.7 Bejucal. Leave Bejucal going east along calle 10, a very old calzada, winding through hills known as Sierra de Bejucal; bushy pastures on both sides of the road.
- 18.0 Road becomes very rocky, sunken in soft limestone rock about 8 feet at the summit of the grades.
- 18.7 Road ascending.
- 19.0 Road descending.
- 19.5 Cross small stream. (Road branches north-northwest.)
- 19.7 Leaves calzada, turn east-northeast, road winding. Calzada continues southeast to asphaltum mines and a dirt road continues to Santiago de Las Vegas. Cross small stream.
- 20.0 Finca San Antonio de María L. Dolz. Road very rocky.
- 21.0 Turn north, country very hilly in all directions.
- 21.5 Turn east. (Road continues north.)
- 22.0 Trinidad. Turn north. (Road goes to San Antonio de Las Vegas.) Through hilly pasture land. Road little used and slightly winding. Pass through a gate. Follow fence beside pasture.

Enter a road running east and west and turn east. (Road west to Santiago de Las Vegas.) Country is bushy pasture, dotted with palm trees. Road commanded by hills to the north about 1,700 yards distant.	Miles from Alquizar. 22.0
Cross bed of small stream with stagnant pools, Arroyo Rancho Simón.	22.5
Pass through a gate and enter a narrow, stony lane.	22.7
Turn north-northeast.	22.9
Turn east. (A road enters from the west.)	23.0
Pass through a gate.	23.5
Reach the calzada at a small concrete bridge between kilometer 21 and kilometer 22 posts, and follow calzada north to Managua, 15 kilometers. Leave Managua, going east from 2-story building with a 2-story porch.	24.0
Turn north. Brushy pasture land.	26.0
Turn east. Small lake of muddy water 100 yards to southeast.	26.5
Turn north. Turn east.	26.7
Cross dry river bed Río Lechuga; turns southeast, slightly winding.	27.0
Reaches low lying ridge of hills and ascends through a very stony pass, steep grades.	27.5
Reaches top of hill and follows along crest of ridge.	28.2
Enters a lane running east and then northeast. Road rocky.	29.0
Turn southeast. (A road runs northwest to Cuatro Caminos.)	29.5
Wooded both sides of road.	29.7
Reaches village of Nazareno. Leave Nazareno going northwest over hilly and rocky road. Wooded hills on both sides of road.	30.0
A road branches south to Managua. The road turns north-northwest and then north. Road winds north through cultivated land.	31.0 31.5
Turn east. (A road continues west.)	32.0
Pass dry lagoon in hilly, bushy pasture just south of road.	32.2
Turn north through high rolling country, under cultivation. Road becomes good.	32.7
A road branches east to San José de las Lajas. Road slightly rocky.	32.7
Road becomes winding, continuing north.	33.0
Turn northeast on calzada, road winding. (The calzada continues southwest to Managua.)	33.5

Miles from
Alquizar.

- Cross a calzada running north and south through the finca Santa Amelia.
- 34.0 Pass a third kilometer post. (From Cuatro Caminos.)
- 34.2 Bodega La Guarapeta. (A road branches southeast to San José de las Lajas and Nazareno.)
- 34.3 Cross concrete bridge over dry bed of small stream Arroyo Chepalope. Pasture land to north. Land to south cultivated. Loma Chepalope to the southeast.
- 34.7 Finca Portugalete. A calzada branches east-south-east to the ingenio Portugalete, distant about 1 mile. A road branches west.
- 35.2 Small concrete bridge over mud hole (Arroyo Bertemate).
- 35.6 Cross Habana Central Electric Railway and enter town of Cuatro Caminos.
- 36.0 Enters calzada Habana-Güines 500 yards north of twenty-first kilometer post.

ROAD No. 8.

SANTA CRUZ DEL NORTE—MAMEY DURO—AGUACATE—MADRUGA—
INGENIO SANTA RITA—LA CATALINA.

General direction: SE. to Aguacate; SW. to La Catalina. Distance: 32.5 miles.

IN GENERAL.

1. Santa Cruz del Norte to Mamey Duro.—An unimproved dirt road that is washed out in many places, so as to be difficult for wheels except by cutting into fields to get around. It ascends by a steep grade from Santa Cruz and enters a hilly country, then passes through level cultivated land with stone fences.

2. Mamey Duro to Aguacate.—An unimproved road through a flat country except one hill near Aguacate. Road not much used for 1.8 miles out of Mamey Duro. Practicable for wagons and bull carts in dry season. Probably impassable for wagons in wet season.

3. Aguacate to Madruga (via mountains).—A good dirt road running through a country half cultivated and half pasture land, with many stone fences, and passing over the Madruga Mountains by a trail to the town of Madruga.

4. Madruga to La Catalina.—A fairly good dirt road in the dry season, but rough in places. Practicable for bull carts and light-loaded wagons. Wheeled transportation should continue on the road to Sabana de Robles after crossing the stream Casa Blanca and, passing through Sabana de Robles, rejoin the road here described.

IN DETAIL.

Leave Santa Cruz del Norte. Ascend a hill and follow crest of plateau. Here a road runs to San Antonio and San Matías (Almacenes de Jaruco). Miles from Santa Cruz del Norte.

Follows crest of plateau. Pass a large unused water reservoir to right. 0.9

Road reaches top of hills, giving good view of valley and town of Santa Cruz. Enter woods. 1.7

Road rough, running over limestone rock. Country wooded and hilly. 2.0

A road branches west to San Antonio and San Matías. 2.2

Las Cruces (2 houses). 2.3

Cuatro Caminos de Santa Cruz. Crossroads. A road east to Jibacoa; west to Caraballo. 2.5

Old sugar mill San José de Oviedo, 250 yards to right of road. Pasture lands. 3.1

Pass over pasture lands covered with palms. 3.6

A road runs southwest to Caraballo. 3.9

A road east to Jibacoa. 4.1

Tienda Mamey Duro. A road runs west to Caraballo. 4.3

Mamey Duro switch. Leaves Mamey Duro from the bodega at switch, going east. 4.9

Turns southeast. (Road continuing east goes to Jibacoa.) 5.1

Burned ingenio. 5.5

Turns east. 5.7

Bad places in the road. Mud. 5.8

Small bodega, and a lane branches north leading to San Lorenzo and Semanat. Road turns southeast and becomes bad. Mud. 6.1

Reaches railroad, wide gauge, of Pelayo. At this point is a crossroads. Road east to Ponce and west to Caraballo. 7.3

Small stream of clear water. Hills of Ponce to the east. Open pasture land to the west. 8.1

Road ascends hills of Ponce. Good view both north and south from the hill. 8.4

Road enters Jaruco-Bainoa-Aguacate road and turns east along this road. 8.9

Turns southeast. 11.0

Reaches Aguacate. Leave Aguacate on the calle Real going southeast. Pass to the left to get around the cemetery and take a palm-lined road due south. The road that runs east from this point goes to Matanzas. The 11.7

Miles from Santa
Cruz del Norte.

- road south has been metaled as far as the railroad station of Xenes, but it is in a very poor state of repair.
- 12.4** The road rises and passes over a slight ridge and approaches a low range of brush-covered hills, Montes de la Esperanza.
- 12.5** Turns southeast and passes along the foot of this range of hills.
- 12.8** Turns south for 218 yards, then east for 327 yards, then southwest, crossing the U. H. R. R. tracks at the station of Xenes.
- 13.1** The metaled road ends here.
- 13.4** Continues southwest, unimproved but good road in the dry season. At 13.4 road turns southeast and runs between palms, and branches off and runs southwest. The road that continues southeast from this point runs to the pasture of Bolaino. Runs southwest through palm grove and ascends gradually toward wooded hills, Monte de Mendoza. Turns to the left and, winding around, skirts the foot of the hills. These hills are 80 feet high, cliff sides, and covered with brush.
- 14.1** Turns southwest and then northwest, keeping the wooded hills to the right, and leaving the palm-dotted pasture lands to the left.
- 14.3** Turns southwest through pasture lands, leaving the hills.
- 14.5** Turns west.
- 14.8** Turns north of west.
- 15.0** Turns west, and country becomes more cultivated.
- 15.4** Road turns south. A road also runs north from this point to the station of Sabana de Robles.
- 16.0** Road runs south to the low range of mountains, where it becomes a mountain trail and ascends a moderate grade, very rough and rocky.
- 16.6** The road passes along the side of a grassy ridge, the crest of which is about three hundred yards to the right. To the left the land slopes downward over rolling pasture lands. Passes over a ridge, Loma de la Gloria, and descends grassy, rolling hills toward Madruga.
- 16.9**
- 17.5** Enters the town of Madruga after having passed a small flow of clear water, the source of Río Copey. Leave the town from the northwest corner on the road running northwest to the cemetery, leaving the bare, grassy hills to the right, Alto de la Giquima, and wooded pasture land to the left.

Passes cemetery, bare hills commanding the road at comparatively short range; road gradually descending.	Miles from Santa Cruz del Norte. 18.5
Road descends and crosses a small stream called Arroyo Casa Blanca, and after crossing the stream turns west. (A road from this point goes northwest to Sabana de Robles.) Crosses the railroad track and, becoming a trail, passes through a rolling country partly cultivated and partly pasture, passes a small stream of clear water, and then gradually ascends to the ingenio of Santa Rita. Leaving Santa Rita the road turns north, passes a clear stream of water, Río Culebra, and turns west to cross the railroad track, which runs to the ingenio from Sabana de Robles. It then runs north and northwest along a wire fence, leaving a low ridge of wooded hills to the left. Hills about 80 feet high. (Montes de la Luisa.)	19.5 20.5 21.5 22.0
Passes through a stone fence by a wooden gate and strikes the Sabana de Robles road to La Catalina. Goes west and enters the hills without ascending. Road becoming rough and rocky.	23.0
A small cane patch to the right between the hills.	23.5
Emerges from hills and follows along their foot; hills to the left and open, cultivated country to the right.	24.5
Crosses the U. H. R. R., from Güines to Matanzas, near the 91-92-kilometer post, and follows along the north side of the track for 0.5 mile, leaving the hills and passing through a half cultivated pasture land.	25.5
Recrosses the track near the 90-91-kilometer post, and runs southwest through palm groves and patches of sugar cane with stone fences.	26.5
Turns south. (A road from this point runs north through Lechuga and connects with roads leading to Jaruco, Bainoa, and Aguacate.)	27.5
Turns west, woods to the left, cultivated ground to the right. Stone fences.	28.5
A burned bridge 12 feet high, 15 feet long. Road passes to the right to get around this bridge and then resumes the original direction. Cultivated both sides.	29.2
A road branches off to the south which leads to Madruga by way of El Gato.	29.5
A road branches north leading to Lechuga.	29.8
Road turns to the right, running west of north. Crosses the railroad track, and enters the eastern end of La Catalina.	31.5 32.5

ROAD No. 9.**JAMAICA—GÜINES—MELENA—BATABANÓ.**

NOTE.—From Jamaica to Güines is a portion of what is known as the Carretera del Sudeste.

General direction: SW. Distance: 33.4 miles.

IN GENERAL.

1. Jamaica to Güines.—A first-class macadam road, suitable for all classes of transportation.

2. Güines to Batabanó.—This trail is called a short cut by the natives, but the road is so difficult that it should be used only when it is desirable to avoid the main road. Practicable only in the dry season, and then for pack animals and foot passage only. Impracticable at any season for wheeled transportation, except that bull carts could be used between Güines and Melena in the dry season. The best road from Güines to Melena passes through Palenque and San José ingenio, and from Melena to Batabanó through Guara and Cuatro Caminos.

IN DETAIL.

Miles from
Jamaica.

- Leave Jamaica on Güines road. Country more level.
Half cultivated.
- 0.7 Enters town of San José de Las Lajas.
 - 1.7 Pass town of San José de Las Lajas, road running south.
 - 2.0 A road branches east to La Catalina. Level country on both sides.
 - 2.6 A road branches east to El Carmen, with level open country both sides.
 - 3.5 A road branches west to the hills known as El Sabalo. Electric railroad running alongside of road.
 - 4.9 Crossroads. The road branching southeast goes to La Catalina.
 - 6.0 A dirt road branches east to Morales.
 - 6.7 A road branches south to Flor de Mayo. Stone fences.
 - 7.7 Road turns to southeast through a cut in the hills; thick brush on right side and remains of old Spanish blockhouse on top of a hill 327 yards to the left.
 - 8.0 Road still in cut; brush to right and open hilly country to the left.
 - 8.1 Road leaves cut. Open country both sides. Cross-road. Northeast to La Catalina. Southwest to La Jutía. This crossroads corner is known as Número

Cuatro. Begin ascent. A good view of Güines valley from top of hill known as Loma de Candela, 250 feet high.	Miles from Jamaica.
Road starts down hill through a 20-foot perpendicular cut in the rock.	9.0
Road descending from Lomas de Candela between Castellanos and Díaz (hills) through a deep cut in the rock. A good view of the country is to be had from this point.	10.0
Crossroad. West to Palenque; east to La Catalina. Country level and well cultivated.	10.5
Road crosses Arroyo del Fotuto by a stone culvert. Ford would be difficult if culvert were destroyed.	12.4
Road enters Güines. Road leaves Güines southwest along the calle Real.	13.0
Crosses U. H. R. R. and reaches switch which leads south to ingenio Suria (Nombre de Dios); follows switch, and just before reaching the sugar mills turns west.	13.2 14.2 15.1
Turns south and turns west at a crossroads. The road going east leads to Providencia.	15.7 15.8
Turns southwest and then south; road very marshy and difficult.	15.9
Road turns west.	16.2
Road turns south.	16.3
Crosses track of a switch to Providencia.	16.4
Road turns west and passes a bodega on the left.	16.5
Road becomes indistinct and runs into a series of garden spots. Turns to the right and passes between gardens on a path and takes up the road running west. At this point there is a crossroads, the road running north going to Palenque through the lands of the old cafetal of that name. Road good from here to Melena.	16.9 17.1
Road turns southwest. Pasture land. One road branches south to ingenio San José. Main road goes on a short distance, turns south, and passes ingenio San José, having crossed the track of the switch leading to San José.	17.9 18.3
Road runs southwest.	18.8
Road turns west, a branch leading off to the south. Road winding, but keeping a generally western direction.	19.3
Reaches Melena. Leaves Melena, going east along tram track.	20.4
Turns west by southwest through half pasture, half cultivated land.	20.8
Pass a crossroad.	21.6

Miles from
Jamaica.

- Arrive at crossroads and turn southeast. The road leading northwest leads to Guara.
- 22.6 Arrive at crossroads and turn south of west.
- 22.8 A road branches off to the left to a finca, and road here becomes impracticable for wagons.
- 23.1 Pasture lands to north of road and swampy land overgrown with bushes to the south.
- 23.5 Road branches off to the left, leading to a house. Swampy and bushy on both sides.
- 24.1 Trail leaves the road as marked by the wire fence, which here turns slightly toward north. Trail continues south of west.
- 24.7 Trail reaches house of charcoal burner, passes house, and reenters the road marked by fence; goes west for 200 yards, and there turns south by southwest.
- 25.9 Reaches house with lagoons to the south and west. Goes through gate near house and passes through fields and between lagoons, keeping westerly direction, and reenters the road at about 27.2 and goes north by northwest.
- 27.2 Trail turns off the road and goes west by southwest.
- 27.8 Passing through gates, strikes a well-traveled road running north by northwest and follows this to Cuatro Caminos. Cuatro Caminos is a crossroads, the road north leading to ingenio La Julia, and from there to Habana, the one east to Melena, and the one southwest to Batabanó. A good dirt road runs southwest from
- 31.0 Cuatro Caminos 1.2 miles, and then south for same distance, through cultivated grounds, and reaches Batabanó.
- 33.4 From Batabanó a good calzada runs to the Playa de Batabanó.

ROAD No. 10.

BATABANÓ—GÜIRA DE MELENA—SAN ANTONIO DE LOS BAÑOS—
VEREDA NUEVA.

General direction: NW. Distance: 31 miles.

NOTE.—During 1908 a metaled road was built connecting Güira and San Antonio.

IN GENERAL.

1. Batabanó to Güira de Melena.—Except between 2.2 miles point and 4.5 miles point from Batabanó, road is rocky, but practicable for light-loaded wagons and bull carts at all seasons. Between

above-named points road is little traveled and so muddy as to be impracticable in wet season. Bushy pasture lands border the road for some distance. Stone fences most of way.

2. Güira de Melena to San Antonio de los Baños.—A fairly good dirt road for 2.7 miles out of Güira de Melena and a new calzada from that point to San Antonio. This road will soon be calzada the entire distance, and the route to be followed is as described. Country half open, cultivated, and rolling.

3. San Antonio de los Baños to Vereda Nueva.—An unimproved dirt road, very rocky near both towns, winding through cultivated country. Practicable for light loads and bull carts.

IN DETAIL.

Leave a point on the Batabanó-Quivicán road 2.2 miles north of Batabanó, going west-southwest.	Miles from Batabanó.
Swampy ground on north side of road. Dry in dry season.	2.6
Cross standard-gauge railroad running northwest. A spur.	2.7
A road branches south.	3.0
Turn south-southwest.	3.2
Pass through swamp hole; dry in dry season.	3.3
Swamp on north side of road.	3.6
Turn west-northwest. (Road branches southeast).	4.1
Destroyed ingenio Mora 0.3 mile to south.	
Mud hole; water in dry season.	4.2
Turn west-southwest. Road becomes better. (A road continues west-northwest.)	4.5
Crossroad running north and south.	4.6
A road branches south.	5.4
Destroyed limekiln north side of road.	5.5
Camacho. (Road running north to Mosquera and San Agustín, and south to coast.) Road becomes rocky.	5.9
Road becomes slightly winding, continuing west.	6.6
Bushy pastures both sides of road.	
Brush both sides of road. Road becomes very rocky.	6.9
Road branches south.	7.6
Open bushy land; dog-tooth rocks; no fences.	8.0
Fence on south side of road.	8.4
Trails branch north and northwest. Stone ruins to south, 327 yards.	8.6
Brush south side.	9.0
Stone fences.	10.0

Miles from
Batabanó.

- Becomes less rocky; bushy pasture both sides of road.
- 10.4 A road branches north to Güira de Melena.
- 12.1 Line of palms on south side ends.
- 13.0 Finca Guadalupe. (Road branches south.)
- 13.5 Finca San Miguel.
- 14.0 Turn north. (Road continues west.)
- 14.4 Land becomes cultivated
- 14.6 Road branches east.
- 14.7 House. (Road branches west.)
- 14.8 Stone ruins 327 yards to east.
- 15.0 Mamey. One store. Turn northwest into avenue of palms. (Road branches east to Batabanó.) From this point road approximates angle of a circle by small inclines to the north and east at about 980-yard intervals.
- 15.7 Line of palms on west side ends.
- 16.1 Line of palms on east side ends.
- 17.0 La Cachimba. (Crossroad running northeast to El Gabriel and southwest to the coast.) Leaves circular arc and winds north.
- 17.1 La Conchita. Telephone line to tobacco establishment at Güira de Melena.
- 17.5 Tobacco plantation west side. Destroyed ingenio 0.4 mile to west.
- 17.9 Enter avenue of palms.
- 18.1 Narrow lane branches east; footpath.
- 18.5 Turn west. (Road continues north to tobacco establishment. Road runs east.)
- 19.2 Turn north into continuation of calle Real Güira de Melena. (Road continues south.)
- 19.4 Cross calle Nueva. Leave Güira de Melena going north along calle Real. A crossroad runs east and west. Reaches the graded road that is being prepared for the calzada. (A road branches northeast.)
- 20.6 A road branches west. Road winding slightly, but keeping a general northerly direction.
- 20.9 A lane branches west.
- 21.0 A store called La Loma. (A road passes between low-lying hills.) Country becomes rolling and half open.
- 21.9 A road branches east.
- 22.0 A road branches west. Calzada completed to this point from San Antonio.
- 22.9 Small store called Tabisto. (A road branches west to Tumbadero.)
- 23.0 Passes small schoolhouse.

A small store called Quintana. (A road branches west to Tumbadero and one east to Gabriel.)	Miles from Batabanó. 23.9
Enters San Antonio along calle Esperanza. Leave San Antonio.	25.0
A narrow lane runs north.	26.0
Roads branch north and south.	26.5
The road becomes more rocky. (A road branches south.)	27.0
A road branches northeast.	27.5
A road branches north.	28.0
Road winding. (A road branches south.)	29.0
A road runs northeast.	30.0
A road runs southeast.	30.2
Narrow lane north. Enter calzada on calle Martí.	31.0
Vereda Nueva.	

ROAD No. 11.

BATABANÓ—POZO REDONDO—QUIVICÁN—GÜIRA DE MELENA—
ALQUÍZAR—CEIBA DEL AGUA—VEREDA NUEVA.

General direction: NW. Distance: 35 miles.

IN GENERAL.

1. Batabanó to Quivicán.—Ordinary dirt road, unimproved and passable with difficulty for bull carts in dry season. Impassable for wheels in wet season. Road passes through level country, some pastures, but mostly cultivated. The road runs through wire-fence land, except in few places, where it crosses cane fields.

2. Quivicán to Güira de Melena.—An unimproved dirt road passing through level, cultivated country, principally cane. Practicable for wheeled transportation in dry season, but for bull carts only in wet season.

3. Güira de Melena to Ceiba del Agua.—From Güira de Melena to Alquizar the road is second-class calzada, running through cultivated land. From Alquizar the road is an unimproved dirt road and very rocky, passing through very bushy country, partly cultivated. The fences are nearly altogether of dog-tooth rock. This portion of the road is passable for bull carts and light-loaded wagons.

4. Ceiba del Agua to Vereda Nueva.—A very rough road, winding through cultivated country. Practicable for light loads and bull carts. An unimproved dirt road.

IN DETAIL.

Miles from
Batabanó.

- Leave a point on Batabanó-San Antonio de Las Vegas road 1.2 miles north of Batabanó, going northwest.
- 1.7 Road becomes low and in wet season would be mud hole for about 0.4 mile.
 - 2.3 Road branches east to La Julia.
 - 2.5 Swamp, west-southwest.
 - 3.0 Turns west-northwest.
 - 3.2 Crosses Batabanó branch of U. H. R. R. at Pozo Redondo and turns west-southwest.
 - 3.7 Turns west.
 - 4.0 Crosses open cane fields. (Road branches south.)
 - 4.5 Turns northwest.
 - 5.9 Passes through destroyed ingenio east side of road and turns west.
 - 6.5 Cross roads; turn north. (Road south to Batabanó; west to central San Agustín.)
 - 6.5 Enter Batabanó-Quivicán road. Leaves Quivicán on calle Sol going southeast. (Road goes southwest to Bejucal and Güira de Melena.)
 - 7.0 Road parallels standard gauge railroad running south to ingenio San Agustín from station, Quivicán, on U. H. R. R.
 - 8.5 Road branches east to San Felipe. Road branches west to destroyed ingenio Mi Rosa.
 - 9.0 Turns west. (Road continues south to ingenio San Agustín. Road branches east to San Felipe.) Good well south of road at destroyed ingenio.
 - 10.0 Turns southwest through cane.
 - 10.5 Cross roads. (Road southeast to ingenio San Agustín. Road northwest to join a road, Quivicán to Melena.) Turn west through avenue of palms.
 - 11.0 Passes through large inclosure of destroyed ingenio Mi Rosa.
 - 12.0 Turns southwest. Line of palms in south. Open cane fields.
 - 12.2 Turn west.
 - 13.0 Turn south. (Road runs north to El Gabriel and Quivicán.)
 - 13.2 Turns west. Large ceiba tree to north. (Road runs east to Dolores.)
 - 13.7 Road branches north to La Salud.

Road branches south to destroyed ingenio Bufón and continues to join road from Batabanó to the Vuelta Abajo country.	Miles from Batabanó. 14.0
Turn north. (Road continues west to Güira de Melena.)	14.5
Turn west. (Road continues north to San Antonio de los Baños.)	15.0
Cross Western Railway of Habana.	16.0
Turn southwest, entering town of El Gabriel on calle Real. Leave El Gabriel going west through level country, well cultivated.	16.2
Cross roads. Turn south. (Road continues north to San Antonio de los Baños. Road continues west to join calzada Güira de Melena to San Antonio de los Baños.)	17.0
Turn west.	17.3
Turn south-southwest.	17.7
Cross Western Railway of Habana.	17.8
Turn west. (Road runs east to Quivicán.)	18.2
Cross Western Railway of Habana, running south-west and northeast.	18.5
Enter Güira de Melena on calle Real. Leave Güira de Melena on calle Martí, winding north.	19.0
Cross roads. (Road runs northeast to San Antonio de los Baños. Road runs southeast to Güira de Melena.)	20.7
A road branches south to Alquizar.	20.8
Cross road running north and south.	21.5
Road branches north.	22.0
Cross Western Railway of Habana at Fortún; spur 218 yards long. (Road branches north.)	23.5
Enter Alquizar on calle Máximo Gómez.	24.0
Leave Alquizar on calle Máximo Gómez going west on rocky road through avenue of palms, passing small tobacco plantations.	24.7
Zorilla; large tobacco plantation. (Cross macadam road running north and south through plantation.)	25.5
Avenue of palms ends.	26.0
A road branches south. Turn west-northwest.	26.1
Road becomes more rocky. Bushy pastures on both sides.	26.5
Winds north-northwest. (Road continues west to Artemisa and road branches south.) Country becomes very bushy; thick brush.	26.7
A road branches west. Becomes less rocky.	27.2
A road branches north to San Antonio de los Baños.	27.5

Miles from
Batabanó.

- 27.7 Becomes less bushy.
- 28.2 A road branches north-northeast.
- 28.7 A road branches west-southwest.
- 29.7 A road branches south.
- 30.0 Paradónde; small tobacco plantation. Destroyed ingenio of El Cavite. Road becomes more rocky; continues winding, bearing north.
- 31.5 Ascends gradually, very slightly for about 0.1 mile.
- 32.5 Enter calzada from Ceiba del Agua to Capellanías at south end of Ceiba del Agua. The calzada runs along main street. Leave railroad at Ceiba del Agua on rocky road winding northeast.
- 32.7 Crossroad running northwest and southeast. (Road branches southeast.
- 33.7 Road branches north.
- 34.0 Road branches north-northwest.
- 34.7 Enter Vereda Nueva on calle Martí; main street, macadam.
- 35.0 Cross calzada running north to Caimito and south to Saladrigas.

ROAD No. 12.

LA CATALINA—EL GATO—MADRUGA—PIPIÁN—EL JOBO—LOS PALOS.

General direction: E. to Madruga; S. to El Jobo, and E. to Los Palos. Distance: 29.5 miles.

IN GENERAL.

1. La Catalina to Madruga.—A rough road over hilly country, half cultivated and half pasture, with stone fences. Practicable for bull carts in dry season. Impracticable for wheels in wet season.

2. Madruga to Pipián.—A fairly good dirt road in the dry season, running through a rolling cultivated country. Road shows signs of attempted improvement in places. Practicable for wagons and bull carts in dry season, and for bull carts in wet season.

3. Pipián to El Jobo.—A comparatively good, unimproved road. In dry season rough and stony in many places. Passes through a flat, level country with stone fences. Practicable for wagons and bull carts in the dry season, and practicable for bull carts in the wet season.

4. El Jobo to Los Palos.—A fairly good road during the dry season.

IN DETAIL.	Miles from La Catalina.
Leave La Catalina.	2.0
Join road Madruga-Catalina via Santa Rita.	2.2
Cane fields on all sides.	3.0
Cross small stream.	3.2
Cross small stream.	3.3
Pasture land.	4.7
Old ingenio El Gato to the south.	5.6
Small stream; rocky cliffs to north close to road,	5.7
Montes del Gato.	
Top of hill; good view.	5.8
A road south to Pipián.	6.0
A road southeast.	6.2
Mud hole; wooded ridge 0.6 mile to north follows road.	7.0
Road in bad condition.	7.1
A road south to Pipián.	7.5
Top of hill.	8.1
Descends hill by steep grades.	8.5
Ingenio San Antonio.	9.7
Madruga. Leaves Madruga going south from the southeast corner of the town.	9.8
Turns east.	9.9
Turns south.	10.2
A road branches east.	10.4
Road turns southeast across open field.	10.6
Turns south.	10.7
A road crosses east to other road leading to Pipián.	
West to San Antonio. The road continues south.	
Turns southeast for short distance, then south, and winds through cultivated fields without fences.	11.7
A crossroad runs east and west.	12.4
A small stone house; turns east for 100 yards and enters a small lane and turns southwest.	13.4
Turns southeast. (Road northwest goes to San Antonio ingenio and Madruga.)	13.7
Enters Pipián from the west along the calle Real.	14.4
Leave Pipián going west along the main street and turn south about 100 yards from the edge of the town. (The road continuing west leads to Madruga.)	
A road branches west leading to El Cangre and San Nicolás.	14.6
Passes the low, wooded ridge known as Monte La Carlota, and descends toward level country below.	15.0
Road good, but rocky and slightly winding.	

Miles from La
Catalina.

- Deep, narrow river bed to the left of road, with stagnant pools of water at intervals (Río de la Industria). Road becoming little used and bad in wet season.
- 15.6 Open pasture lands. River bed with stagnant pools still following to east of road.
- 16.2 A well and small steel water tank on right of road. (A short-cut road to the ingenio of El Jobo cuts through the fields to the right from this point. Used only in cane-hauling season.)
- 16.6 Road rocky. Bushy pastures to the east.
- 18.0 Turns west. (A road goes east to farm lands and connects with a trail to Las Vegas. Road south connects with road to ingenio Teresa and also El Jobo.)
- 18.2 Road turns south. (A road connects southwest to San Nicolás.)
- 19.2 Dismantled ingenio of San Rafael. Road passes through San Rafael and reaches a road running north-east and southwest. Turns southwest toward Jobo.
- 19.5 Ingenio of El Jobo. To follow the roads as they now are it is necessary to go south from El Jobo for about 0.6 mile and enter the Nueva Paz-San Nicolás road and follow that road, turning north to reach Las Vegas. To reach Los Palos it is necessary to go to Nueva Paz and follow the calzada north from there to Los Palos. In time of war, however, the best and shortest route is to follow the railroad with a pair of wire cutters.
- 29.5 Los Palos.

ROAD No. 13.

CUATRO CAMINOS—TAPASTE—CAMPO FLORIDO—GUANABACOA.

General direction: NE. to Tapaste; NW. to Guanabacoa. Distance: 26 miles.

IN GENERAL.

1. Cuatro Caminos to Tapaste.—A very hilly and rocky road, unimproved. The fences are principally of stone.

2. Tapaste to Campo Florido.—A rough road with steep grades, running through a very hilly country that is mostly bushy pasture lands. Not practicable for wheels at any season.

3. Campo Florido to Guanabacoa.—A calzada in fine state of repair west of La Gallega, which is about 5.5 miles from Guanabacoa. The calzada has moderate grades, and is practicable for all kinds of wheeled transportation at all times of the year. There is but one important bridge. This is at Puentes Blancos, is built of stone,

and its destruction would seriously impede cavalry and artillery, as the stream is difficult to ford. From Minas to La Gallega and for 3 miles east of Minas the road is unimproved. Practicable for animals and for bull carts, and light loaded wagons in the dry season. About 3 miles beyond Minas the new calzada, which is now being constructed, is reached. This calzada extends for about 1.2 miles east of Campo Florido, and it is the intention to connect this with the calzada running east from Guanabacoa.

IN DETAIL.

Leave Cuatro Caminos on the Habana-Güines calzada going southeast. Small lagoons just east of the town, Miles from
Cuatro Caminos.
Lagunas Matamoros, San José de la Sierra, and Sabanilla.

Leave calzada 500 yards north of 22 kilometer post (from Habana) and turn northeast, road winding through rolling country about half pasture and half cultivated. 0.6

Cross small stream running to lagoons north of road about 0.4 mile. Good concrete bridge. 0.9

Pass lagoon on north side of road. 1.5

Lagoon 100 yards north of road. 1.7

Cross small stone culvert over dry bed of small stream leading to large lagoon just south of road. 2.2

Lagoon 100 yards south of road. Road becomes rocky. 2.4

San Pedro Pino. (bodega.) Turn east-southeast, road winding. (Road continues northwest to Cotorro.) 2.7

A road branches north. Lagoon 300 yards to south. 3.0

Lagoon north side of road. 3.2

Lagoons both sides of road. From here a chain of large lagoons run southeast on the southwest side of the road. These are called Lagunas de Sabanilla. 4.5

Finca Sabanilla. (A road branches north.) Road winds east. Pasture land on north. Cultivation on south. 3.7

Bushy pastures on both sides of road. 4.4

Finca La Andrea. Country densely dotted with palm trees. The road parallels a range of low hills to the north, running east and west. 4.5

Lagoon 100 yards to the south. Country north of road is cultivated. 5.0

Dry lagoon north side of road. 5.2

Small lagoon to south at foot of hill, about 100 yards distant. 5.3

Pass a hill just south of road. 5.5

Miles from
Cuatro Caminos.

- Large lagoon just north of road Laguna de la Tembladera. In wet season several acres surrounding lagoon would be under water, including the road.
- 5.6 lagoon would be under water, including the road.
- 5.7 A road branches south.
- 5.8 Pass an unused concrete bridge over small stream.
- 6.0 Cross concrete bridge over small stream leading to lagoon just north of road. Bushy pasture to south.
- 6.2 Cross small concrete culvert near lagoon to north and enter the town of Tapaste on the main street. Leave Tapaste going east on the road leading toward Jaruco.
- 8.2 Turn northeast. High cliff at the southeast overlooking road.
- 8.5 Road turns east along base of high cliffs.
- 8.7 Turns north and descends steep grade, Lomas de Peregrina.
- 9.1 Turns northeast.
- 9.7 Turns north; hilly pasture lands.
- 10.0 Turns northeast. (Road southeast leads to Jaruco.) Crosses dry river bed.
- 11.0 Turns north. (Road branches west to Guanabacoa.) Crosses dry river bed. Thick brush both sides.
- 12.5 Turns southwest.
- 12.6 Passes through gate.
- 12.7 Turns northwest.
- 14.0 Turns north and crosses small stream of good water. (Road branching northwest goes to Minas.)
- 14.1 Turns east.
- 14.5 Turns north; country becomes level and cultivated.
- 14.7 Crosses small stream with steep banks.
- 15.0 Turns northeast. (Road continuing northwest goes to Minas. Road southwest to Cotorro.)
- 15.5 Enters Campo Florido on the southwest side and crosses railroad 218 yards east of kilometer 23. Leave Campo Florido. Road runs through a fertile valley, through two cuts and along a ridge.
- 17.0 Cross a bridge 20 feet long across small stream.
- 17.3 Bridge (wood) 25 feet long over small marshy creek; difficult ford. Macadam road.
- 18.6 Pass along swampy creek. Pass through a stone cut 15 feet deep.
- 19.8 Enter town of Las Minas.
- 20.6 Pass small stream, Arroyo Minas.
- 20.9 Village of La Gallega. Beginning of the Habana calzada.
- 21.1 Road descends from ridge.

Stone culvert 20 feet long over a small creek; ford difficult, Río Condesa. Miles from
Cuatro Caminos.
21.6

Hills 700 yards to south commanding road. A road branches off to south and one connects with a lane to Las Minas. 21.7

Cross the Bacuranao River at Paso de Castilla. Steel bridge 70 feet long, 25 feet high. This is a small stream in dry weather, steep banks, difficult to ford. 22.0

Town of Bacuranao. Road ascends. Country rolling. 22.6

Stone quarries on top of low ridge. 24.5

Cross Río Cojimar over a stone bridge called Puentes Blancos. The crossing is generally known as Paso del Tamarindo. Banks steep, but ford easy in dry season. 24.8

Guanabacoa. 26.0

ROAD No. 14.

GÜINES—RÍO SECO—SAN NICOLÁS—PIPIÁN (BY SHORT-CUT TRAILS)—
LOS PALOS (NORTHERLY ROAD).

General direction: SE. Distance: 25.2 miles.

IN GENERAL.

1. Güines to San Nicolás.—An unimproved dirt road which runs through level cultivated ground. Practicable for wagons and bull carts in the dry season, but probably impassable for wheels in wet season.

2. San Nicolás to Pipián.—A fairly good dirt road with a few bad places in the road. Crosses private fields for some distance. Practicable for wagons and bull carts in dry season and for bull carts with difficulty in wet season.

3. Pipián to Los Palos.—An unimproved road that is rough and stony in many places and has a few places that would become difficult in wet season. Practicable for wagons and bull carts in dry season; for bull carts with difficulty in wet season. Passes mostly through woods and bushy pastures.

IN DETAIL.

Follow the Pipián-El Cangre-Güines road east to a point 3.1 miles from Güines and turn south. Miles from
Güines.
3.1

Road turns west. 3.2

Road turns south. 3.6

Miles from
Güines.

- 3.7** Road turns east-southeast and crosses railroad. (Road west to Trujillo and Güines.) Road follows west side of railroad.
- 4.2** Crosses Río Seco. No water in dry season. Railroad bridge over stream could easily be converted into wagon bridge. Road crosses railroad and runs northeast.
- 4.5** Road turns south and crosses railroad. (Road continuing northeast to Chuntarato and Cangre.) Railroad running east of road.
- 5.0** A switch on railroad.
- 5.5** A road branches east; goes to Soma Arriba.
- 5.7** A road branches west, which leads to Amistad and Güines.
- 6.0** Road enters town of Río Seco. From Río Seco a road runs south for about 0.6 mile and joins the San Nicolás-Güines road. (A trail follows the railroad track to San Nicolás, and this would be the best route for wagons in time of war. A wire cutter should be taken along to cut fences.
- 9.5** San Nicolás. Leave San Nicolás going northwest from the matadero (slaughter house) along a stone fence. Turns northeast. (Road continuing west goes to El Cangre.) Turns north entering fields through fence. (Road continuing northeast goes to El Jobo.) Road winds through fields, passing gates. Pass through stone fence and turn north.
- 11.0** Cross a narrow lane and continue through fields. Wooded pastures.
- 12.0** Enter a road between fences and turn north. (The road south connects with a road to San Nicolás. A road forks southeast to El Jobo.)
- 12.5** Road between stone fences and rocky. Stony half-open pastures. A dry river bed (Río Seco de San Nicolás), deep and dangerous in wet season. Cross river bed and enter lane and turn northwest, soon turning north.
- 12.7** Road running northeast.
- 13.0** A lane branches northwest. A large palm grove to north of road.
- 13.7** Passes over a slight rocky rise in road through woods. Ruins of an old sugar mill. (A road runs northwest to El Cangre.)
- 13.8** Turns east. Turns north.
- 14.0** Turns east.
- 14.7** Turns north. Turns east.

Enters a road running north and south, and turn north.	Miles from Güines.
Road rough and stony.	15.2
Turns east. A road branches north to San Antonio.	15.5
Road turns north.	16.2
Pipián. Leave Pipián from east end of town going south along Industria River branch. Wagons should cross river near east end of main street and take first lane leading south to join road here described.	17.0
Crosses Río de las Vegas, here called Río de Madruga, and ascends hill by a steep trail to a rocky lane going west through stone fences. A road branches north through fields, which is the road wheeled transportation should take to or from Pipián.	17.2
Passes a cross lane, brush pastures both sides. Bad muddy place in road.	17.5
A road branches north. Stone ruins of house. Road turns slightly to north, winding; bushy pastures. A road branches south to Las Vegas; road becomes little used, grassy and rocky.	17.8
Enters dense woods and turns southeast.	19.2
Descends small hill and turns east, and emerges from woods and bushy pastures.	19.5
Land becomes cultivated; stone ruins on both sides. Road muddy in wet season.	20.7
Enters woods.	21.7
Emerges from woods and a road branches to left. Cross roads and turn to the right.	22.0
Cross roads and turn to the left.	23.2
South by southeast. A road branches left to Josefita.	23.7
Los Palos.	25.2

ROAD No. 15.

PIPIÁN—EL CANGRE—GÜINES.

General direction: W. Distance: 12.7 miles.

IN GENERAL.

An unimproved road that runs through hilly, cultivated country. Rough and rocky in places and in other places inclined to be muddy. Practicable for wagons and bull carts in dry season, but probably impassable for wheels in wet season.

IN DETAIL.

Miles from Pipián.	
	Leave Pipián going west along main street.
0.1	Turn south. (Road continuing west goes to Madruga.)
0.2	Turns west. (Road continuing south goes to El Jobo.)
1.6	Turns northwest. Rocky.
2.1	Cross Copey River. Large flow of good water. Good ford.
2.6	Turns west. (Road southeast to San Nicolás.)
3.4	Crosses small, clear stream.
3.6	A crossroads. San Blas de Manuel Diaz. (Road north to Madruga; road south to San Nicolás and El Jobo.)
4.1	Road turns north for 200 yards and then west again.
4.3	A road branches northeast to Madruga and crosses stream (Río del Cangre).
5.1	A slight jog in road. Continues west.
5.7	A road branches north to El Gato.
5.8	Road turns south by southwest.
6.0	Reaches bodega of El Cangre and a road branches south to San Nicolás. Leaving El Cangre, main road runs southwest.
7.7	A road branches northwest to La Catalina. This point is known as El Rechazo.
8.1	Crosses river. Good flow of good water. Rocky ford (Río Seco de Tirry).
8.4	Road passes over small hill. Deep cut in road. Brush pasture lands to south and palm-dotted cane fields to north.
9.0	Road rough and rocky. Cane fields both sides.
9.5	Passes irrigation ditch several times.
9.6	Crossroads. (Road south goes to Río Seco de Rubio and San Nicolás.) Road turns north-northwest.
9.7	Road turns northwest.
10.2	Ingenio of Amistad to northwest of road 0.3 mile.
10.9	Road turns west.
11.0	Road turns north.
11.2	Crosses railroad from Güines.
11.4	Crosses over bridge of river (Río de Güines or Maya-beque); bridge 30 feet long, stone abutments, floor of railroad rails. Good ford just above bridge.
12.1	Road turns northwest.
12.7	Enters Güines on calle La Reina.

ROAD No. 16.

SAN MATÍAS (ALMACENES DE JARUCO)—JARUCO—TAPASTE—SAN JOSÉ DE LAS LAJAS—NAZARENO.

General direction: SW. Distance: 24.1 miles.

IN GENERAL.

1. San Matías (Almacenes de Jaruco) to Jaruco.—A very rough road, and muddy in places at all seasons, practicable for animals only. Wagons should go to San Antonio and from there to Jaruco.

2. Jaruco to Tapaste.—A short road between the two places named which passes over the mountain. It is an unimproved dirt road that is practicable for horses at all seasons of the year, and could be used by bull carts with light loads. It is rough in many places, and has several very steep grades. A better road exists between these places which avoids the mountains, but is longer. This road, known as the Perú road, goes to the south of the one here described, and joins the latter at a place named Mendoza (Tapastillo). The road here described passes through the old insurgent strongholds in Las Escaleras de Jaruco and the cave district.

3. Tapaste to San José de las Lajas.—A new calzada of the second class, through flat, cultivated country. Practicable at all seasons for all wheeled transportation.

4. San José de las Lajas to Nazareno.—A very rough, stony road, over a country that is mostly half open pasture land. Country extremely hilly, and road contains many steep grades. Practicable for light loaded wagons with extreme difficulty in dry season. Impassable for wheels in wet season.

IN DETAIL.

	Miles from San Matías.
Leave San Matías (Almacenes de Jaruco). Turn west and follow San Matías-Tumba Cuatro-Campo Florido road.	1.3
Reach old ingenio of Jiquiabo. Road rocky; general direction south.	2.2
Reach the Campo Florido-Tumba Cuatro-Cuatro Cami- nos-Soledad-Jaruco road 2.4 miles from Jaruco.	4.1
Enter Jaruco on calle Guaicanámar. Leave the town, going west on calle Real, passing down a steep grade to the Jaruco River, a large, clear creek of good water. Trail rises on opposite side of the river steep and rocky.	6.5
Cross track of U. H. R. R. and turn south over a low, muddy stretch.	7.1

Miles from San
Matias.

- Trail turns southwest and rises gradually over rocky ground. Lomas del Serpention to the south.
- 7.2
- 7.4 Turns west, still rising.
- 7.7 Descends steep slope and then ascends gradually over rocky ground. High hill ascends to the south, and sloping, rolling pasture land descends to the north.
- 8.1 Turns west by northwest, lowers slightly and then rises over a very steep grade to the top of a small ridge which extends out from the hill to the south (Loma Cansavaca).
- 8.3 Trail turns southwest and descends; then ascends a
- 8.4 steep grade to where road becomes less steep, but still ascends.
- 9.1 The top of the chain of hills is reached. A deep, narrow, cultivated valley is seen to the left, and to the north all of the country can be seen as far as the sea. Road enters the brush, passing a steep wooded mesa to the south.
- 9.3 Road enters a cañon with a level floor, cliff sided, mesas on both sides at a distance of about 50 yards. This is a veritable trap, and troops that were caught in here would be at the mercy of a few men placed on the mesas that surround the place. Mesas are from 100 to 200 feet above the trail, are overgrown with fan-leaved palms that stand 6 to 10 feet high. The sides of these mesas are coral rock cliffs, and are extremely difficult to ascend or descend. Height about 100 to 150 feet.
- 9.5 Trail turns west and descends slightly. Begins the descent of the western side of the mountain. At this point is a steep, rocky descent in the form of a stairway, about 50 yards long. This is known as the Escalera misma, or Escalera de Jaruco. Descending this steep trail for about 200 yards a point is reached where two
- 9.7 cave-like openings are seen above the trail in the cliffs to the east. One of these has a large limestone column suspended from the arch of the roof. These are guiding marks to the Sitio Perdido, because the openings in the cliffs opposite these two marks, almost due west of them, leads to the place named.
- 9.8 Passes a large balance rock beside the trail known as the Piedra Sola or Piedra de Mulato.
- 9.9 Turns northwest, leaving an open, marshy field and small lake, El Aljibe, to the left. This place also has a well from which all of the natives in the vicinity have to get their water, as there is no other watering place in the vicinity. The road continues in a general westerly

direction, commanded on both sides by the mesas which seem to be without number. Miles from San Matías.

The road turns southwest, still descending gradually. 10.3

Turns west, open pasture land to the left, about 15 acres, and a cultivated patch to the north. At this point to the left is seen a large tree growing out of a depression in the ground. This depression is the mouth of a cave that is so overgrown by brush as to be hardly noticeable. 10.4

Road runs in a westerly direction, and at 10.7 passes between two hills through a narrow passage. This place is known as Boca del Morro. West of the Boca del Morro the road runs through pasture lands and cultivated patches, passing through several gates. The hills recede and do not control the road at close range, as they do east of the Boca. At the Boca del Morro the road passes through a very narrow place, not more than 25 yards wide. The sides of these hills are cliffs of limestone rock. A force coming from the west would have to pass over about 400 yards of open ground controlled by these hills, which are about 100 feet high. A small force could hold the Boca for a long time against a larger force coming from the west. It would be difficult to approach this point except from the front over the open pasture land. 10.7

Enters a lane between stone walls, and runs south and then southwest to the point called Mendoza (Tapastillo). Has one building. A road leads off from this point to the southeast, going to Jaruco, known as Camino de Perú. 11.4

Road still continues west. Low wooded hills on both sides 100 yards distant. 12.0

A road branches north toward Campo Florido and a low, wooded ridge runs to the south called Loma de San Francisco Javier, joining La Loma de Jáula. 12.7

Passes a small pond La Tembladera, to the left, and then rises gradually. At 14 the road descends for a short distance and then continues to the town of Tapaste. Leave Tapaste on Jamaica-Tapaste calzada and follow same for 13.3

2.1 miles. Leave this calzada at a place called La Campana (one house). 13.5

Cross road and house. A road west to Punta Lanza on highway. A road east to (camino Central) Vuelta Arriba. 14.4

A road runs west. 16.6

Enter San José de las Lajas. Leave San José, going southwest. 17.5

19.1

- Miles from San Matías. Cross Hoyo de Escribano. Land level and cultivated.
- 19.5 Enter hills.
- 19.8 Recross same stream.
- 20.4 Road runs in valley between hills. Ascend steep, rocky grade—a dry river bed.
- 20.5 Enter a lane between fences. Road difficult to follow.
- 20.8 Road winds over grassy hills without fences.
- 21.0 A road branches southwest. Main road runs north-west.
- 21.1 Turn north. Descend hill by steep grade.
- 21.8 A lane branches north through stone fences to Jamaica. Road crosses dry bed of a branch of Río de Vertis. Ascend steep grade.
- 22.1 Descend steep grade. Cross dry bed of another branch of Río de Vertis. Road but little used and very rocky.
- 22.4 A road branches north to Cuatro Caminos in a bamboo grove.
- 24.1 Enter Nazareno.
-

ROAD No. 17.

SAN MATÍAS (ALMACENES DE JARUCO)—TUMBA CUATRO—CAMPO FLORIDO—PEÑALVER (GUADALUPE)—SANTA MARÍA DEL ROSARIO.

General direction: SW. Distance: 21.8 miles.

IN GENERAL.

1. San Matías to Campo Florido.—An unimproved dirt road running through a hilly country. Mostly pasture land, practicable in the dry season for wagons and bull carts and impracticable for wheels in wet season.

2. Campo Florido to Santa María del Rosario.—An unimproved dirt road, very rocky and hilly. Passable in dry season for bull carts and lightly loaded wagons, except in the vicinity of the town of Peñalver (or Guadalupe) where the road having been used only as a trail and become sunken, is impassable for wheels. Fences are both stone and wire.

IN DETAIL.

- Miles from San Matías. Leave San Matías going south through pasture lands.
- 0.9 Reaches cross roads and turns west. (The road south-east goes to San Antonio and Jibacoa). Crosses the River Jiquiabo, follows along the foot of grassy hills, leaving cultivated ground and pasture lands to the right.

A road branches south into the hills, going to Jiquiabo and Jaruco.	Miles from San Matías. 1.3
Crosses the Jaruco River and turns southwest and then west and continues along the hills. (The road which goes north from this Jaruco River ford goes to the Boca de Jaruco.)	1.9
Turns south and enters the hills. (The road which continues west goes through San Francisco and Peñas Altas to Guanabo.) Road goes through half open, grassy hills, winding and ascending, but keeping a general southwesterly direction.	2.9
Emerges on southern slope of hills and goes west to finca of Majana. (Telephone line to San Miguel.)	4.4
Leave Majana, west by southwest, descending to a small creek.	5.1
Reaches Cuatro Caminos, a cross road with a store and one house. From this point the road south goes to San Miguel and Jaruco, the road east to San Antonio, and the road west to Tumba Cuatro and Campo Florido. Take road west.	5.7
The road passes a ridge with a palm covered ridge on north and cultivation on the south.	7.3
Village of Tumba Cuatro (5 houses). Intersection of roads from San Miguel and Playa del Rincón. Pass stream called Ahoga Gallinas. Camp site.	7.5
Pass over a low ridge.	8.5
Run along a ridge with crest 200 yards to north. Country low and muddy—due to springs.	9.0
Follow along foot of low ridge which lies to the north. The road becomes a succession of rises and falls, gradual slopes, rough in places and muddy at low places.	9.1
Pass the Cañada of Tivo Tivo over a stone culvert. Calzada begins here.	9.2
Pass ruins of old central (Tivo Tivo) to left and cross fertile valley. Crest of grassy ridge to the south 200 yards. To the north is rolling country.	9.3
Turn southwest. Cross a new steel bridge over the Guanabo River, 100 feet long and 50 feet high.	9.8
Campo Florido. Leave Campo Florido depot going southwest.	10.0
Road branches west. Pasture on west. Bushy pasture on east. Road becoming winding.	10.2
Cross small flow of water.	10.5

Miles from San
Matías.

- Cross roads. Turn west, road winding. (Road continues south to Tapaste. Road runs east to San Miguel and Jaruco.) Land partly cultivated.
- 10.7 Cross dry bed of small stream. Telephone line follows road to bodega Jesús María (old ruined ingenio of same name nearby).
- 11.7 Road becomes rocky.
- 12.0 Bodega Jesús María. Turn southeast, then south-southwest. (Road branches northwest to Minas.)
- 12.5 Road branches southeast. Turn southwest.
- 12.7 Cross muddy bed of small stream.
- 13.0 Turn south-southeast, then south, crossing small flow of water. Road winding.
- 13.2 Turn southwest, road winding.
- 13.7 Road branches southeast.
- 14.0 Cross muddy bed of small stream.
- 14.3 Cross wooden culvert over small flow of water. Road branches northwest at ruins of ingenio Santa Rita de Arango.
- 14.7 Road branches southeast. Cross dry bed of small stream.
- 15.0 Road branches east then turns south. Turn west, road winding.
- 15.1 Road branches north at bodega Aranguito (old ingenio of same name).
- 15.6 Road branches southwest to Santa María del Rosario. Bushy, hilly pastures on both sides of road.
- 17.0 Bodega La Trampa. (Road branches north.)
- 17.8 Road branches northwest. Cross Río La Condesa or del Paredón.
- 18.0 Turn southwest, road winding.
- 18.7 Bodega in town of Peñalver (or Guadalupe). Road continues winding southwest through hilly, bushy pasture land. Road very rocky.
- 19.2 Turn south, road winding.
- 19.7 Trail branches northeast.
- 20.1 Turn southwest, road winding. (Road branches southeast.)
- 20.2 Slight flow of clear water (headwaters of Río Cambote).
- 20.5 Turn southeast. (Road branches west.) Road winding.
- 20.7 Cross small flow of water.
- 21.0 Cross small flow of water.
- 21.3 Cross dry bed of small stream.
- 21.8 Turn west and enter town of Santa María del Rosario on the main street. Road branches east.

ROAD No. 18.

GUANABO—SAN MATÍAS—SAN ANTONIO DE RÍO BLANCO DEL NORTE—CASIGUAS.

General direction: SE. Distance: 21 miles.

IN GENERAL.

1. Guanabo to San Matías.—An unimproved road that is little traveled and much grown up with brush. Contains several bad mud holes even in dry season and would be very difficult for either bull carts or wagons; probably impassable for wheels in wet season. It runs near the top of a ridge which is parallel to the coast range and about 0.6 mile from the latter.

2. San Matías to San Antonio de Río Blanco del Norte.—An unimproved dirt road running through a hill country, mostly pasture land, practicable for wagons and bull carts in the dry season; impracticable for wheels in wet season.

3. San Antonio del Río Blanco de Norte to Casiguas.—An unimproved dirt road running through a flat country which is generally cultivated, mostly in sugar cane. Road is practicable for wagons and bull carts in dry season, but must be impracticable for wagons in wet season.

IN DETAIL.

Follows the Guanabo-Playa del Rincón road until after passing the lake at a point 1.1 miles from Guanabo;	Miles from Guanabo.
turns slightly south of east and ascends hills.	1.1
A small spring and the ruins of a stone house.	1.7
Road becomes very rough and rocky; descends and passes a small stream (Arroyo Ahoga Gallinas).	1.9
Passes Peñas Altas ruined ingenio, a small store and schoolhouse, a cross road which runs from Campo Florido to the coast.	2.6
Bad mud hole.	2.7
Bad mud hole.	3.0
A road branches to the north and crosses the coast range (Sierra de San Francisco) to the beach.	3.4
Ruins of a stone house also called Peñas Altas.	3.7
Burned ingenio of San Francisco. A crossroad at this point runs north to the beach. The road running south branches, one road going southwest to Tumba Cuatro, the other south to Majana and Cuatro Caminos. Road continues east.	5.3
Passes a small creek (Arroyo San Francisco).	5.7

Miles from
Guanabo.

- 6.6 Joins the San Matías-Tumba Cuatro-Campo Florido road at a point 2.9 miles from San Matías and continues along that road to San Matías.
- 9.6 San Matías (Almacenes de Jaruco). Leaves San Matías going south through pasture lands.
- 10.5 Reaches crossroads and turns southeast. (Road west goes to Boca de Jaruco and Campo Florido.) Road runs along eastern bank of River Jiquiabo, (Río Jaruco.)
- 10.9 Leaves river and runs through half-open pasture lands.
- 11.4 Road runs along bottom of hills.
- 11.7 Muddy place in road, and hills approach near the road to the northeast.
- 12.0 Swampy place in road, and palm-covered hills approach road from the south.
- 12.3 Turns northeast and crosses Arroyo Blanco. Good water and grass.
- 12.5 Runs northeast 218 yards and then turns southeast over high hill.
- 12.7 Crossroads. Continues south. (Road going northeast goes to Jibacoa.)
- 13.9 Remains of sugar mill El Conde de Bainoa to east of road.
- 14.2 Road branches southeast to Caraballo.
- 14.5 San Antonio de Río Blanco del Norte. Leaves San Antonio from the plaza going south along the calle Real.
- 15.1 A road branches west and joins the route of the Jaruco-San Antonio calzada. (A road east to Caraballo, and joins the Caraballo-San Antonio road.)
- 16.0 A road branches east to the ingenio Lotería.
- 16.2 A road branches west to the Jaruca-San Antonio calzada and reaches said calzada between the second and third kilometer post at the place where the calzada makes the curve around a well. The road east from this point goes to some farms.
- 16.5 A road branches to right. Is a short crossroad of no importance.
- 17.2 Crosses the Jaruco-Bainoa-Aguacate road. The road west from this point goes to Jaruco; the road east to ingenio of Carmen and Bainoa, and the road south to Casiguas.
- 17.8 Continuing south the road crosses the U. H. R. R., and continues south by southwest between stone fences.
- 19.2 Road turns west by northwest.
- 19.5 Road turns south and enters a gate which has been built across the road. From this point the public road

should run south, and its line can still be followed by the trees and the ruins of stone fences. (A trail runs south-west over pasture land and joins the Casiguas-Jaruco road. This is the best route for either wagons or animals.) Follow road north as marked by line of trees.

Miles from
Guanabo.

Small lake to right of road.	20.2
Enters a lane and turns west.	20.3
Strikes Casiguas-Jaruco road.	20.4
Casiguas.	21.0

ROAD No. 19.

NUEVA PAZ—SAN NICOLÁS.

General direction: W. Distance: 10.9 miles.

IN GENERAL.

An unimproved road through a flat country with many pastures. Practicable for wagons and bull carts in dry season. Probably impracticable for wheels in wet season.

IN DETAIL.

Leaves Nueva Paz from north end of the main street, going west.	Miles from Nueva Paz.
Turns southwest. (A road branches northeast.)	1.6
A road branches northwest to Las Vegas.	2.1
Crossroads and turns northwest. (The road southwest goes to the old ingenio Cumagua; the road southeast to Filomena and Nueva Paz.)	2.5
A lane branches southwest to Caimito.	3.0
A road branches west to old ingenio of Armonía.	
Road branches north to Las Vegas, 0.9 mile.	4.0
Crosses Río San Luis (or Río Las Vegas).	5.7
A road branches north to San Rafael and Pipián.	6.0
Road has gradually turned west. (A lane branches south.)	6.5
A road branches north to El Jobo.	7.1
A road branches south to finca of Recurso.	7.2
A lane branches south.	7.5
Arroyo Armonía.	8.0
A lane branches south.	8.5
A road branches north to El Jobo.	8.7
Railroad tracks of ingenio Teresa, and road turns north-west. (A road south to Teresa.)	9.0
Crossroads. (Road north to El Jobo.)	10.2
San Nicolás, entering along main street.	10.9

ROAD No. 20.**EL JOBO—SAN NICOLÁS—GÜINES.**

General direction: NW. Distance: 11.7 miles.

IN GENERAL.

1. El Jobo to San Nicolás.—A road not suitable for wheel transportation.

2. San Nicolás to Güines.—An unimproved road running through a level, cultivated country. Fairly good to where the road branches north to Río Seco. From there to Güines road is little used, muddy in many places, and impracticable for wheels at almost any season of the year. The best and shortest road is to turn north to Río Seco and take the road from there to Güines.

IN DETAIL.Miles from
El Jobo.

From El Jobo wheeled transportation should follow a road south for about 0.6 mile and strike the Nueva Paz-San Nicolás road. For animals, a shorter road is as follows: Leave El Jobo across open field going southeast. Turn west and pass through a couple of gates.

- 0.5 Enter a lane between fences and turn south.
- 1.1 Turn west. (Road continuing south goes to Teresa.)
- 1.2 Turn west by southwest.
- 1.5 Cross railroad switch of Teresa and turn north for 50 yards, then west, and southwest.
- 2.5 Crossroads and turn west. (Road east leads to Teresa. Road south to Playa de Camito.)
- 3.1 Town of San Nicolás. Leave San Nicolás going west along the main street. At the edge of the town a road branches southwest to Guanamón. Road follows along railroad tracks for 1.2 miles, turns north for 200 yards,
- 4.3 and enters a main road going west.
- 4.8 Crosses to southern side of railroad track again at cane station Escorial.
- 5.4 Crosses small muddy stream.
- 5.8 A small ditch crosses road.
- 6.2 A road branches south.
- 6.3 A road branches north to Río Seco.
- 7.1 A small pond to north. Road becomes grassy and little used. Muddy in places, irrigating ditches becoming frequent.

Road runs northwest, then west again. Bad muddy place.	Miles from El Jobo.
	7.4
Turns northwest.	8.3
Road turns north into fields to avoid swampy places.	8.7
Winds through cane fields and crosses the river of Mampostón (or Güines) and reenters the main road.	10.2
Road runs northwest to the town of Güines, entering on calle Peñas.	11.7

ROAD No. 21.

SAN ANTONIO DE RÍO BLANCO DEL NORTE—CAMPO FLORIDO.

General direction: W. Distance: 11.7 miles.

IN GENERAL.

A bad road at all seasons, passable for bull carts in dry season.

IN DETAIL.

Leave San Antonio on road running west.	Miles from San Antonio de Río Blanco de Norte.
Road turns south.	0.6
Turns northwest. (Road continuing south goes to Jaruco.)	0.7
Road turns southwest. (Road continuing northwest goes to Jiquiabo.) Road runs through slightly rolling country between stone fences.	1.3
Road goes through gate between two royal palms and becomes a trail.	2.4
Trail comes out in open and valleys can be seen on both sides.	2.7
Joins the Campo Florido-Jaruco road via Soledad-Cuatro Caminos-Tumba Cuatro.	3.1
Follows this road to Campo Florido.	11.7

ROAD No. 22.

SAN ANTONIO DE LOS BAÑOS—BEJUCAL.

General direction: NE. Distance: 10 miles.

IN GENERAL.

From the calzada to Bejucal is a stony road, but practicable for wagons and bull carts probably at all seasons. But in the wet season the best route for all transportation would be through Rincón via the calzada. The Rincón route would be the best for wheels at all seasons.

Country: Small pasture lots, with stone fences.

IN DETAIL.

- Miles from San Antonio de los Baños. Leaves San Antonio on the calzada toward Habana and follows the calzada to the bodega of Govea (between the
- 2.5 30 and 31 kilometer posts). Leaves the calzada at this point on dirt road running east.
 - 3.1 A road branches north. Stone fences.
 - 3.2 Road turns southeast.
 - 3.5 Turns southeast. (A road continues northeast).
 - 3.9 Reaches crossroads and store of Taberna Nueva. (Road southwest to Salud. Road northeast to Rincón).
 - 4.2 Crosses U. H. R. R., to San Antonio. Stone fences everywhere.
 - 4.4 Turns east. (A lane branches south.)
 - 4.5 Turns south.
 - 4.7 Turns east.
Reaches bodega of Beltren. (A road branches south to Gabriel and one north to Rincón.) The road turns
 - 5.0 north for a few yards and turns east.
 - 5.6 A road branches southwest.
 - 6.2 Crosses Western Railway.
 - 6.9 Turns south. (A road goes north to Rincón.) From this point a view of Bejucal and intervening valley is obtained.
 - 7.5 Road sunken.
 - 7.7 Turns south.
 - 8.1 Turns east. (A road continues south to La Salud.)
 - 9.5 Pass near cemetery.
 - 10.0 Enters Bejucal.

ROAD No. 23.

SANTA MARÍA DEL ROSARIO—PEÑALVER—MINAS—GUANABO—PLAYA DEL RINCÓN.

General direction: NE. Distance: 14.9 miles.

IN GENERAL.

1. Santa María del Rosario to Minas.—A rough road that becomes but a trail in many places. Winds over a hilly pasture country with many steep grades. Practicable for light-loaded wagons and bull carts in dry season, except the road between La Trampa and Peñalver, which is impracticable for wheels.

2. Minas to Playa del Rincón.—An unimproved dirt road through a country two-thirds pasture and one-third cultivated. Is practicable for wagons and bull carts in dry season, but probably impassable for wheels in wet season.

IN DETAIL.

Leave Santa María del Rosario. (From Santa María ^{Miles from Santa} to Peñalver, *see* S. Matías-Tumba Cuatro-Campo Florido- ^{María del} Peñalver-Santa María road, from 18.7-mile point to ^{Rosario.} 21.8-mile point.)

Peñalver.	3.1
Village of La Trampa. Here meet the Campo Florido- Peñalver-Santa María road.	5.0
Village of Arango. Enter hills, going north.	5.8
Leave hills.	7.0
Pass open hill, going northeast. Enter Minas, passing between depot and a tienda. Leaves the Minas-Campo Florido road at a point 1.2 miles from Minas and crosses muddy ford and continues along the road east by northeast.	8.0
Passes a store and turns east.	10.1
Crosses a small bridge over a stream and turns south- east and then east again.	10.4
Small stream of clear water and trail becomes rough.	11.7
Small stream of water.	12.2
Reaches Campo Florido-Guanabo road and goes north 218 yards to Guanabo.	12.3
From Guanabo, follow the Campo Florido-Guanabo- Playa del Rincón road to the Playa del Rincón.	14.9

ROAD No. 24.

PLAYA DE JIBACOA—JIBACOA—CARABALLO—BAINOA—CASIGUAS.

General direction: S. Distance: 15.3 miles.

IN GENERAL.

1. Playa de Jibacoa to Jibacoa.—An unimproved dirt road which has several bad muddy places even in the dry season. Practicable for bull carts in the dry season; probably impassable for wheels in the wet season.

2. Jibacoa to Caraballo.—An unimproved dirt road that is practicable for light-loaded wagons and bull carts in dry season, but with difficulty. Runs in the most part through a level country, half cultivated and half pasture land, with stone fences.

3. Caraballo to Bainoa.—Usual unimproved dirt road through level, cultivated country; practicable for bull carts and wagons in dry season, but impassable in wet season.

4. Bainoa to Casiguas.—Level, half cultivated, half pasture. Stone fences. Practicable for wagons and bull carts in dry season and for bull carts in wet season.

IN DETAIL.

Miles from Playa
de Jibacoa.

- Boca de Jibacoa.
- 0.5 Springs and bad mud hole.
- 1.1 Mud hole. Road turns west, then south again.
- 1.4 Mud hole.
- 2.2 Small wooden bridge over spring; ford difficult.
- 2.6 Pass through several gates, cross pasture land surrounded by hills. Jibacoa. Leave Jibacoa on the
- 5.3 Jibacoa-San Antonio road and follow it to the Cuatro Caminos de Santa Cruz. From this point follow the road continuing west for 0.1 mile, and then south, crossing river Santa Cruz, at a point called Ojo de Agua, a large spring of water which forms the river.
- 6.0 Road still going south. Old sugar mill San José de Oviedo about 218 yards to east.
- 7.0 Road crosses wide gauge railroad of Pelayo, which runs east and west. Country level and planted in cane.
- 7.2 A road branches east and west. East and southeast to Caraballo.
- 7.5 A crossroad. The road continuing south goes to
- 7.8 Bainoa. The road west to San Antonio, and the road east runs 0.3 mile to Caraballo. Leaves Caraballo on calle La Palma, going south.
- 8.2 Reaches narrow-gauge railroad of Lotería and turns west.
- 8.5 Turns south. (Branch going west goes to Lotería.)
- 8.7 Turns east.
- 8.9 Turns south.
- 9.2 Cane to west. Brush and swamp to east.
- 9.5 Large lagoons to right of road.
- 9.9 Joins Jaruco-Bainoa-Aguacate road at about 0.6 mile from Bainoa.
- 10.5 Runs west to town of Bainoa. Leaves Bainoa, going west along railroad.
- 11.6 Turns south. (Road continuing northwest goes to Jaruco and crosses U. H. R. R.)
- 11.8 Crosses narrow-gauge railroad from ingenio Carmen to colonia Averhoff; stone fences.
- 12.9 Road turns west. (Road going east goes to Sabana Robles.)
- 14.7 Road turns south. (Road going north goes to Jaruco.)
- 15.3 Town of Casiguas.

ROAD No. 25.

HABANA—VENTO—WAJAY—ARROYO ARENAS.

General direction: SW. to Wajay; NW. to Arroyo Arenas. Distance: 13 miles.

IN GENERAL.

A new macadam road which runs south from the Palatino pumping station along the side of the aqueduct which carries the water from Vento Springs to Habana. From Vento the road runs southwest to Wajay, and from there northwest to Arroyo Arenas on the Habana-Guanajay calzada. The grades on this road are all moderate. Practicable for all kinds of transportation at all seasons.

IN DETAIL.

Leave Palatino Park and brewery in the Cerro district going due south, passing the Palatino pumping station.	Miles from Habana pumping station.
Turn east.	0.8
Turns south. A blockhouse of wood is in field to the north and gives a view down the road. The Western Railway runs through a deep cut on the eastern side of road.	1.0
Western Railway runs on a 10-foot fill to east of road.	1.3
Passes a wooden bridge, 40 feet long, over stream, Arroyo Apolo; crossing called Puente de Orengo. Ford difficult, but stream easily bridged. Heavy concrete aqueduct on western side of bridge carries the water over the bridge. Western Railway on a high fill east of the road.	1.5
Road turns southwest and Western Railway turning slightly southeast leaves the road.	1.9
Cross Habana-Guanajay electric railroad.	2.2
Crosses bridge, 56 feet long, of wood on concrete pillars, over a swampy stream, Río Cotilla. Ford difficult, but could be bridged to the east by a 20-foot span. A wooden blockhouse guards the road south of the bridge. Road gradually ascends.	2.5
Top of elevated piece of ground. Good view to north, northeast, and northwest; also to south and southwest. A road branches west. Brushy pastures on both sides.	3.0
A crossroad runs east and west.	3.6
The road turns south.	3.9
Cross a small stream on concrete bridge, Arroyo Beatriz.	4.2
Reaches the brick factories at Capdevila street. Has a station on the U. H. R. R.	4.3

Miles from Ha-
bana pumping
station.

- The U. H. R. R. crosses the Almendares River at Puente de Cañongo, a short distance west of the road, on a steel bridge which could be converted into a wagon bridge. Road winds over a rolling country of bushy pastures, Almendares River running close to the west of road. Steep banks.
- 5.0**
- 6.2** Reaches top of the hill at the Vento waterworks. A wooden blockhouse is on this hill west of the road. Road descends hill and crosses the Almendares River on a steel bridge, with 3 spans, 2 concrete pillars. Bridge 147 feet long and about 35 feet high; at the end of this bridge, on the western bank of the river, is the series of springs and the concrete reservoir which supplies the water for Habana. On top of the hill above the springs is an old style Spanish blockhouse of masonry. Country on all sides rough, stony, and bushy. Having crossed the bridge the road ascends through a stone cut 15 feet high and 150 yards long, running west. A wooden blockhouse constructed in 1906 stands on top of this cut.
- 6.6** Cross U. H. R. R. double track, which at this point runs north and south through a stone cut. Road runs southwest. Country half cultivated and half pasture land.
- 7.4** Pass cemetery of Mazorra. A calzada runs south 0.7 mile to insane asylum of Mazorra. A dirt road branches north through fields to sugar mill Toledo and town of Marianao.
- 8.0** Pass through grove of palm trees with plots of tobacco and pineapple.
- 8.7** Reach the small town of Wajay. Leave Wajay, going west on a slightly winding road. Country level, and half open.
- 10.1** Road turns northwest; winding.
- 10.7** Village of Cuatro Caminos de los Chicos. A road branches west to San Pedro. A road branches east to some fincas.
- 11.8** Country becomes rolling and more open.
- 12.4** Town of El Cano.
- 12.7** Passes a solid masonry bridge, 20 feet long and 20 feet high (Puente Ahoga-Ratones). Ford difficult.
- 12.7** Cross Marianao steam railroad.
- 13.0** Cross Habana-Guanajay electric railroad and reach the Marianao-Guanajay calzada at the western edge of Arroyo Arenas, 9 miles from Habana.

ROAD No. 26.

BATABANÓ—SAN FELIPE—SAN ANTONIO DE LAS VEGAS.

General direction: N. Distance: 17.6 miles.

IN GENERAL.

1. Batabanó to San Felipe.—A fairly good unimproved dirt road in dry season running through cultivated, level country. Practicable for wagons and bull carts. Practicable for bull carts only in wet season.

2. San Felipe to San Antonio de Las Vegas.—A very poor trail, except in the vicinity of the towns connecting the road running north from San Felipe to Managua with the calzada from Habana to Batabanó, running through San Antonio. The trail is impassable for wheels at all seasons, and is very rocky and rough. Country very little cultivated.

IN DETAIL.

Leave Batabanó—San Antonio de Las Vegas road at gate with two large pine trees, and continue northwest, wire fence on left, through cultivated land.	Miles from Batabanó.
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Pasture on right and cane on left. Wire fence on right.	6.8
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Wire fence on both sides of road passing small finca Melena.	7.0
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Road turns to right, running north, fence leaving road on right at 7.8.	7.6
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Road turns to left, running west to small store, near finca called Cardona, to left of road, about 0.3 mile; then turns to right, running northwest for about 0.6 mile, where road from Cardona comes into it from south. Continues northwest.	8.3
--	-----

Fence on both sides of road, and runs through uncultivated land covered with thin underbrush to right.	9.1
--	-----

Road crosses U. H. R. R., Batabanó branch, which runs almost south at this point; then continues about 540 yards in same direction to crossroads.	9.6
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Here road turns to right, running north through cultivated land, mostly cane. No fences. A road continues northwest to Santa Rosalia.	10.0
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Destroyed ingenio on left of road inclosed by stone fence.	10.3
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Road turns to right, running north-northeast through wire-fenced land to south end of San Felipe.	10.6
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About 0.8 mile distant, where road turns to the left into a street running north and south. Road leaves San	12.0
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- Miles from
Batabanó.
- Felipe running north-northwest through cane. Wire fences on both sides of road.
- 12.5 Turns slightly to the left, running north.
- 12.7 Leaves San Felipe-Managua road and runs north-northeast through wire-fenced land.
- 13.4 Turns to right, running east-northeast, passing large mud hole and becoming quite rocky, and passes into rocky and rolling land, uncultivated; stone fences.
- 13.7 Turns to right, running east-southeast, the trail becoming more rocky and rugged.
- 14.4 Swings to right slightly and runs southeast.
- 14.6 Trail running through land with rock fences comes in from north and trail crosses dry bed of Río San Felipe and becomes impracticable for wheels. A trail branches off to southwest. Continues 54 yards and turns to left, running north-northeast.
- 15.2 Substantial stone culvert across deep mud hole.
- 15.6 Turns to right, running east-southeast. A trail comes from northwest.
- 15.7 Passes destroyed ingenio on right and turns to left, running east, and becomes extremely rocky, with underbrush on left. Cross a series of rocks and holes, which would be very muddy in wet season.
- 16.7 Turns to left, running north.
- 16.8 Turns to right, running east.
- 17.0 Enters calzada Habana-Batabanó, and runs north to
- 17.6 San Antonio de Las Vegas.

ROAD No. 27.

BATABANÓ—GUARA.

General direction: NE. Distance: 10.9 miles.

IN GENERAL.

An unimproved dirt road through cultivated country, level, and inclined to be muddy at all seasons. Practicable for carts and light-loaded wagons in dry season. Impassable for wheels in wet season.

IN DETAIL.

- Miles from
Batabanó.
- Follow the Batabanó-San Antonio de Las Vegas road
- 5.0 as far as Cuatro Caminos, and continue east by north-east.
- 6.5 A road branches northwest.
- 7.0 Road bad.

Road turns north. (Road south joins a road, Güines to Batabanó.) Bushy pastures; both sides.	Miles from Batabanó. 7.5
Passes dry arroyo.	8.2
Pastures both sides; bushy.	8.7
Crossroad. (Road northeast to Melena and southwest to Cardona and Lagia.) Road continues north.	9.1
Thick palm grove to east and old ruins of sugar mill of Carmen 0.6 mile to the west.	9.4
Road turns northeast.	9.5
Road turns north.	9.9
Road crosses bridge at cemetery.	10.2
Turns east into Guara.	10.9

ROAD No. 28.

AGUACATE—CARABALLO—SAN ANTONIO DE RÍO BLANCO DEL NORTE—
SANTA CRUZ DEL NORTE.

General direction: NW. Distance: 16.3 miles.

IN GENERAL.

1. Aguacate to Caraballo.—Level, cultivated country, planted mostly in sugar cane. Practicable for wagons and bull carts in dry season, but impassable for wheels in wet season.

2. Caraballo to San Antonio de Río Blanco del Norte.—An unimproved dirt road that runs over a level cultivated country. Is practicable for wagons and bull carts in dry season. Has the appearance of becoming impassable for wheels in wet season.

3. San Antonio de Río Blanco del Norte to Santa Cruz del Norte.—Road is cut deep in the limestone rock at places. Is practicable for wagons in the dry season, and for bull carts at all seasons. From San Antonio to within 0.6 mile of Santa Cruz is an unimproved dirt road over level country. From that point to Santa Cruz there are many steep grades.

IN DETAIL.

Leave Aguacate, going west along the road to Bainoa, and follow the railroad of the U. H. R. R. to kilometer 53.	Miles from Aguacate.
From kilometer 53 road runs north. (The Pelayo switch also leaves the main railroad line at kilometer 53.)	2.4
Road turns west.	4.3
Crosses wide-gauge railroad switch of road from San Antonio to kilometer 53.	4.7
Turns north. A large clump of bamboo in turn of road; road very muddy.	5.0
Road turns west for 109 yards, then turns northeast.	5.5

Miles from
Aguacate.

- Crossroads. (Road north runs 1.2 miles to Mamey Duro. Road east to Ponce.) Road turns west.
- 6.8 Duro. Road east to Ponce.) Road turns west.
- 7.6 Crossroads and ruins of stone house and cart shop.
- 8.8 Road continues west to Caraballo. Leaves Caraballo, going west along the main street.
- 9.1 Crossroads. (Road south to Bainoa and road north to Jibacoa and Santa Cruz.)
- 9.7 Road turns north for 218 yards; then west again for 218 yards; then south 109 yards; then west.
- 10.3 Road turns northwest. (Road branching to south goes to Lotería and Bainoa. Road branching west connects with San Antonio-Casiguas road at Estrella.)
- 11.0 Road crosses narrow-gauge railroad from Lotería.
- 11.4 Railroad ends 109 yards north of road.
- 14.2 Town of San Antonio. Leave San Antonio, going north. Join the Jibacoa-San Antonio road and follow same.
- 14.8 Pass through gate from a palm avenue. Country cultivated.
- 15.3 Cross Río Santa Cruz.
- 15.4 Follow road northeast, winding and ascending hill; pass a road south to Mamey Duro. Reach a crossing of three roads; one east to Boca de Jibacoa, one south to Jibacoa, one southwest to San Antonio.
- 16.3 Santa Cruz del Norte.

ROAD No. 29.

SAN ANTONIO DE LOS BAÑOS—SALUD—QUIVICÁN.

General direction: SE. Distance: 10.6 miles.

IN GENERAL.

An unimproved dirt road, which runs through a country that is rolling at first but soon becomes level. Half cultivated and half pasture land, with many stone fences. Road is rough in places, but is practicable for wagons and bull carts in dry season, and for bull carts with difficulty in the wet season.

IN DETAIL.

Leaves San Antonio on calle San Francisco and crosses railroad running south; 100 yards after crossing railroad turns southeast, a row of palms on south side of road. Miles from San Antonio de los Baños.

Turns east. Road rocky. Country open and rolling. 0.6

Turns south. A road branches northeast and joins the calzada to Habana. 1.2

Turns east. A road continues south to Güira de Melena. 1.4

A road branches south to join the calzada. 1.5

Turns northeast. A road goes to the southwest to Güira de Melena. 1.9

Turns south. A road continues east to Bejucal. 2.0

Turns east. 2.2

Turns south. Stone fences both sides. 2.5

Road turns east. A road branches west, which leads to San Antonio. 2.7

A road branches north leading to Rincón. 3.0

A road branches north to Bejucal. Turns south. 3.2

Crosses Western Railway and enters town of Santo Cristo de la Salud on calle Real. 3.5

From Salud a macadam road runs through Buenaventura to Quivicán. 10.6

The following is a short cut over an unimproved dirt road, rough and rocky in many places, connecting Salud and Quivicán:

Leaves Salud by Cruz Verde street, going east on the calzada. At the edge of the town turns south from the calzada and runs between stone fences. Miles from Salud.

Road rocky and very rough. 0.6

Country well cultivated both sides. 1.9

A store and three houses. (El Marqués.) 2.7

Winding, but keeping southerly direction. 3.1

Road very rough. Country covered with palms. 3.7

A road branches west to San Agustín. 4.6

Enters Quivicán by calle El Sol. 4.7

ROAD No. 30.**JIBACOA—MAMEY DURO—CARABALLO.**

General direction: SW. Distance: 6.5 miles.

IN GENERAL.

1. Jibacoa to Mamey Duro.—A short-cut road between the two points named, which passes through several fincas by means of gates. This is the usually traveled route between the two places, although it does not appear to be a public road except for a short distance. The grades are steep and the road is muddy in a few places at all seasons. Practicable for bull carts only in the driest part of the year.

2. Mamey Duro to Caraballo.—An unimproved country road, impassable in rainy season. Practicable for wagons and bull carts in dry season. Runs through flat, cultivated country.

IN DETAIL.

Miles from
Jibacoa.

- Leaves Jibacoa from in front of the church, going south.
- 0.2** Two gates block the road. Enter the one to the right.
 - 0.4** Bad mud hole. From this point for about 1.2 miles the road winds over the hills, with steep grades, keeping a general direction south by southeast.
 - 0.9** Passes over small stream of water between the hills.
 - 1.1** Passes the ruins of an old stone house.
 - 1.6** Ascend to top of a level plateau by a side hill grade. The crest of this plateau forms a good position, as it gives a view of all the hilly country to the north. Road turns southeast.
 - 1.8** Road passes through a stone fence and turns south, passing through a level, cultivated country without fences.
 - 2.4** Turns west.
 - 2.6** Passes a small, clear stream of good water, turns south for a few yards, and enters a road between two stone fences running south by southwest. (At this point a road enters from the north from Santa Cruz and a road branches east to Ponce.)
 - 3.1** Road runs south by southwest, then west, and enters the Santa Cruz—Mamey Duro road.
 - 3.3** Turns south by southeast along this road to Mamey Duro.
 - 3.9** Reaches the railroad switch of Mamey Duro. Leaves store at switch of Mamey Duro, going west. Turns south.

Road crosses a wide-gauge switch of the Pelayo Rail-road.	Miles from Jibacoa. 4.8
Crossroads, with ruins of stone building and a cart shop. (Road east goes to Ponce and Aguacate. Road south connects with the Caraballo-Bainoa road near Lotería.) Road turns west.	5.2
Reaches Caraballo.	6.5

ROAD No. 31.

CUATRO CAMINOS (NEAR CAMPO FLORIDO)—SOLEDAD—JARUCO.

General direction: SE. Distance: 6.8 miles.

IN GENERAL.

An unimproved road, muddy in places at all seasons, practicable for bull carts only, and only in the dry season. Would be difficult for animals in rainy season.

IN DETAIL.

Crossroads of Cuatro Caminos. From here the road north goes to Jibacoa, Santa Cruz, and Matanzas; the road east to San Antonio, and the road south to San Miguel and Jaruco. Miles from Cuatro Caminos.

Going south the road lowers and crosses a clear creek, **0.3** and rises beyond to a cultivated ridge.

A so-called camino Real, leading to Jaruco, turns off **.7** the San Miguel road. Camino Real runs east.

Going east the road lowers and crosses the Río San Miguel. Banks steep, wooded, and much cut up by erosions. Road deep, narrow, and muddy. Passing the stream, the road rises with a moderate grade to the top of a ridge, on which are the ruins of a stone house on the northern side of the road and the ruins of an old cistern on the southern side. These two ruins command the road for several hundred yards to the east. **1.2**

Small, muddy creek. **1.5**

Small, clear flow of water. **2.0**

Passes over a higher ridge with high hills on both sides. **2.3**

Road very muddy. Passes a store and one house called Soledad. Just beyond Soledad crosses a large creek of clay-colored water, Río Jaruco. **3.4**

Road turns south and passes a small stream of clear water. A road runs north to Jiquiabo and San Matías. **4.3**

Miles from
Cuatro Caminos.

- Passes a house known as Guaicanámar. Creek of clear water of same name, and beyond, rising over a rough, rocky road crossing the creek several times, reaches the top of a plateau. From this point the road runs along the top of the plateau over a rocky road through pasture lands until it reaches the town of Jaruco.

ROAD No. 32.

SAN FRANCISCO DE PÁULA—EL CALVARIO—ARROYO NARANJO.

General direction: SW. Distance: 6 miles.

IN GENERAL.

A crossroad between the three calzadas that leave Habana in a southerly direction. An unimproved dirt road passing through hilly, rocky country. Practicable for wagons and bull carts in dry season and for light-loaded bull carts in wet season.

IN DETAIL.

Miles from San
Francisco.

- Leaves the calzada south of San Francisco between 10 and 11 kilometer posts, going southeast along the Habana Central Electric Railroad.
- 0.4 Cross railroad—Habana Central.
 - .5 Turns south-southwest.
 - .6 Turns southwest.
 - 1.1 South, southwest, road rocky, brush pastures on the south; planted with heniquen on the north.
 - 1.5 A road branches south.
 - 2.0 Turns west.
 - 2.4 Turns northwest and becomes winding.
 - 2.7 Turns west-southwest. (A road branches northeast.)
 - 3.0 Cross the Habana-Batabanó calzada at Calvario.
 - 3.1 Turns south-southwest, leaving Calvario.
 - 3.2 Passes cemetery.
 - 3.5 Turns west; country rolling and partly cultivated.
 - 3.7 Road winds.
 - 4.1 Crossroad running north and south.
 - 4.2 Enter lane with stone fences and turn west; winding.
 - 5.0 A road branches south.
 - 5.4 Enters Habana-Bejucal calzada between 8 and 9 kilometer posts. Turn south.
 - 6.0 Arroyo Naranjo.

ROAD No. 33.
LA CATALINA—PIPIÁN—GÜINES ROAD.

General direction: S. Distance: 6.8 miles.

IN GENERAL.

An unimproved road over rolling cultivated country, practicable for wagons and bull carts in dry season, and for bull carts with difficulty in wet season.

IN DETAIL.

Leave Catalina on calle Maceo going south, crossing railroad tracks.	Miles from La Catalina.
Road turns west. High cactus hedges on both sides.	0.4
Road turns south. Cane both sides.	.6
Turns south by southeast.	.9
Turns south.	1.3
Turns southeast; then south to foot of hills.	1.5
Start over hills; thick brush on both sides; road rocky and rough.	1.8
Emerges from woods and crosses dry river bed, running along foot of ridge.	2.1
Crossroads. (Road east to Economía and La Catalina. Road west to Ayala.)	2.3
Road rises to top of Loma El Pico, giving a fine view of country on all sides. Road rough.	2.4
Southeast.	2.5
Turns south through hilly country. Road bad.	2.7
Road continues through hilly country. High stone fences.	3.7
Reaches foot of high hill. Road rough.	4.3
Reaches top of hill and bodega El Pico. (A road branches east to Esperanza and Economía.)	4.6
A road branches west to Burote.	5.0
Turns southeast. Hilly country. Road muddy.	5.7
Crosses river and enters Pipián-Güines road at 7.4-mile point.	6.8

ROAD No. 34.

PLAYA DE BACURANAO—BARRERA—CAMPO FLORIDO.

General direction: SE. Distance: 8.9 miles.

IN GENERAL.

1. Playa de Bacuranao to Barrera.—A rough, rocky road, practicable for bull carts and light-loaded wagons at all seasons.

2. Barrera to Campo Florido.—An unimproved road over a rolling, hilly country that is mostly pasture land. Practicable for bull carts in dry season. Probably impassable in wet season.

IN DETAIL.

Miles from Playa
de Bacuranao.

Leave the village of Playa going southeast, and turn east at edge of village. Road is winding, but keeps a general southeasterly direction; goes through a dense growth of brush.

- 0.9 A wood road branches off to right.
- 1.5 A wood road to the north.
- 2.1 A wood road to the north.
- 2.7 Pass through a large gate on top of a hill. Emerge from the brush; turn south and descend the southerly slope of coast range.
- 3.1 Reach foot of hills and cross cultivated valley.
- 3.4 Village of Barrera. Leave Barrera going east from in front of the church.
- 3.5 A road branches north to some farms.
- 3.7 A road branches south and connects with a road to Minas. Road continues east, crosses a small creek of
- 4.0 clear water, then rises and becomes a trail.
- 4.2 Descends and crosses a small flow of water.
- 5.2 Reaches the top of a ridge, passes through a small field of cultivated ground, reenters a road going south, and descending a gradual slope, crosses a small, swampy stream and enters Minas-Campo Florido road at a point 1.2 miles from Minas. This is also the point where the Minas-Guanabo road turns off the Minas-Campo Florido road and follows the Minas-Campo Florido road southeast
- 8.9 from this point to Campo Florido.

ROAD No. 35.

GUANABACOA—SANTA MARÍA DEL ROSARIO.

General direction: SE. Distance: 4.5 miles.

(During 1908 a metaled road was built from Guanabacoa to Santa María.)

IN GENERAL.

An unimproved road running over a very hilly country with few fences, mostly pasture land. Practicable for light-loaded wagons and bull carts with difficulty in dry season. Impracticable for wheels in wet season. Road little used except as a trail.

IN DETAIL.

Road leaves Guanabacoa going south on calle Corral Falso.	Miles from Guanabacoa.
A road branches southwest to San Francisco de Paula.	0.2
Crosses U. H. R. R., running east and west.	0.6
Crosses small stream with steep banks; open, hilly country on both sides.	1.0
Remains of old bridge, stone abutments. Fordable to west of bridge 10 yards. (Arroyo Amador.) Road turns southeast. Road muddy.	2.5
Cross Arroyo Ahoga Gatos. Rocky ford. Thick bushes on both sides.	2.9
Road turns south.	3.1
A road branches northeast to Minas and Bacuranao.	4.3
Crosses concrete bridge—Puente de Las Vegas—over Río Las Vegas.	4.4
Enters town of Santa María on calle Mayor.	4.5

ROAD No. 36.

CAIMITO—VEREDA NUEVA.

General direction: S. Distance: 4.3 miles.

IN GENERAL.

A good macadam road that runs in a southerly direction from Caimito through a country half open and half cultivated. Country level and very slightly undulating. Practicable for all transportation at all seasons.

IN DETAIL.

- Miles from
Caimito.
- Leave Caimito going south past the electric railway station.
- 1.4 Seven large tobacco barns east of the road. Road turns east for 200 yards, then south and southeast.
- 2.4 Reaches Guachinango. Laguna de Ariguanabo to the east. The road turns southwest. Two roads branch from this point—one southeast and one northeast. Both lead to San Antonio de los Baños.
- 3.2 A lane branches west.
- 4.3 Reaches town of Vereda Nueva. The macadam road continues about 1.2 miles to the railroad station on the Guanajay branch of the U. H. R. R.

ROAD No. 37.

BAINOA—LOTERÍA—SAN ANTONIO DE RÍO BLANCO DEL NORTE.

General direction: N. Distance: 5.3 miles.

IN GENERAL.

1. Bainoa to Lotería (ingenio).—Through level and cultivated cane fields. Practicable for bull carts in dry season. Impassable in wet season.
2. Lotería to San Antonio.—A short-cut trail.

IN DETAIL.

- Miles from
Bainoa.
- Leave Bainoa going west for 218 yards, then go northwest. (Road continuing west to Jaruco.)
- 0.6 Road turns northeast.
- 1.2 Turns north through avenue of palms.
- 1.5 A road branches to the west going to Lotería, but is impassable at all seasons.
- 1.9 Road joins the Lotería-Caraballo road. (Road continuing north joins the Jibacoa-Caraballo road.)
- 2.6 Road follows the narrow-gauge railroad to Lotería. Leave ingenio Lotería following narrow-gauge railroad northwest.
- 4.4 Leave railroad following a road west. (This road continues to Casiguas.)
- 4.7 Crossroads. Go north.
- 5.3 Plaza of San Antonio.

ROAD No. 38.**SANTA CRUZ DEL NORTE—JIBACOA.**

General direction: SE. Distance: 3.7 miles.

IN GENERAL.

An unimproved dirt road running over hill pasture land, with steep grades near Jibacoa. Practicable for wagons and bull carts in dry season. Probably impassable for wheels in wet season.

IN DETAIL.

Leave Santa Cruz, crossing the bridge over Santa Cruz River, and turn south. At the south end of the town three roads branch off: The one east to La Boca de Jibacoa; the one southwest to San Antonio; and the one between these two, running south, to Jibacoa. Follows road south and winds, but has a general southerly direction.

Miles from
Santa Cruz.

Burned ingenio of Echevarría. Turn east. (Road going west and ascending the hill from this point joins the Santa Cruz—San Antonio road on top of hill.)

0.9

Road winds over hills running east and south to Jibacoa through pasture land.

3.7

ROAD No. 39.**QUIVICÁN—INGENIO SAN AGUSTÍN.**

General direction: S. Distance: 4 miles.

IN GENERAL.

Leaves southwest corner of Quivicán and runs southwest for 0.6 mile, from which point it parallels the railroad to the ingenio. It is an unimproved dirt road, passable with difficulty for bull carts in wet season; for wagons and bull carts in dry season.

ROAD No. 40.**INGENIO LOTERÍA—CARABALLO.**

General direction: NE. Distance: 1.2 miles.

IN DETAIL.

Miles from
Lotería.

- Leaves Lotería from northeast corner of mill yard and runs east along the narrow-gauge road.
- 0.3** Crosses San Antonio-Bainoa road.
 - 0.6** Crosses road from Santa Cruz to Bainoa.
 - 0.7** Railroad branches. One branch north and one branch east. Trail follows branch north to town of Caraballo.
 - 1.2** Road runs parallel to railroad into Caraballo, but about 250 yards east of it.

ROAD No. 41.**GUANABACOA—LA NORIA.**

General direction: NE. Distance: 1.8 miles.

IN GENERAL.

A fairly good road, rocky its entire length and rough in places. Practicable for bull carts and light-loaded wagons at all seasons.

IN DETAIL.

Miles from Villa
Real Bridge.

- Leaves the Guanabacoa-Cojimar calzada at the Cojimar River and crosses private wooden bridge to the Villareal; easy fords in the vicinity of the bridge. Follows the private calzada going east, winding and ascending.
- 0.3** Calzada divides; follows the one to the left and ascends.
 - 0.6** Passes through a gate on top of hill and calzada ends. Descends toward the north.
 - 0.8** Gate through stone fence. Road runs north through brush from this gate.
 - 1.8** House and well of La Noria. This is the only point on the northern slope of the coast range (Monte Villareal and Monte Blanco) where water can be obtained between Cojimar and La Playa de Bacuranao. A trail runs north from in front of the house for about 0.6 mile and joins the coast trail near the beach.

ROAD No. 42.

BARRERA—BACURANAO.

General direction: SW. Distance: 2.1 miles.

IN DETAIL.

Leave Barrera. Road runs south through cultivated land to La Gallega, where it reaches the calzada. Follow calzada west to town of Bacuranao.	Miles from Barrera. 0.9 2.1
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ROAD No. 43.

CAMPO FLORIDO—GUANABO—PLAYA DEL RINCÓN.

General direction: N. Distance: 2.6 miles.

IN GENERAL.

An unimproved dirt road over a low, flat country as far as Guanabo, and from there to Playa del Rincón through the hills. Practicable for wagons and bull carts in dry season, but impracticable for wheels in wet season.

IN DETAIL.

Leaves Campo Florido going north on calle Real and continues north very slightly winding over low, flat country to Guanabo. Goes north from store at Guanabo for 218 yards, then turns northeast and crosses wooden bridge over the Río Guanabo at Paso de Bello. Bridge 50 feet long, 20 feet high; ford would be difficult. Road continues northeast over hilly pasture land.	Miles from Campo Florido. 0.6
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Reaches the top of a ridge and comes in sight of a small lake to left of road, Laguna de Majana.	0.6
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Having passed the lake, turns to the left over low ground at the head of the lake and enters a lane running northeast. (A road runs southeast from the head of this lake to San Matías and connecting points.)	1.2
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Turns north and enters the cañon. (A road continues northeast to the Boca de Jaruco. A rough mountain trail hard to follow.) Crosses muddy stream, Arroyo Ahoga-Gallinas or Peñas Altas. Emerges from cañon, and running northeast over a good dirt road, reaches the village of Rincón on the beach. (Rincón de Guanabo, or de Sibarimar.)	1.4 1.8 2.6
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ROAD No. 44.

PONCE—SEMANAT—SAN LORENZO DE CAMPO ALEGRE.

General direction: NW. Distance: 4.4 miles.

IN GENERAL.

1. Ponce to Semanat.—A wagon trail over steep hills with difficult grades. Runs through cultivated fields, mostly without fences.
2. Semanat to San Lorenzo.—Leave Semanat going west from circular stone ruins of sugar mill, road winding over open pasture hills.

IN DETAIL.

- Miles from Ponce. Leaves Ponce going north and winds over hilly, cultivated ground, reaching Semanat at 3.1 miles. From Semanat a road runs east to Canasí, reaching the Aguacate-Canasí road after passing La Vinda. Leave Semanat.
- 3.1
 - 3.2 A road branches south over hills to Mamey Duro.
 - 3.7 Small stream of water, Arroyo Blanco.
 - 4.4 Reach San Lorenzo de Campo Alegre. Stone ruins of a sugar mill and one house of guano.



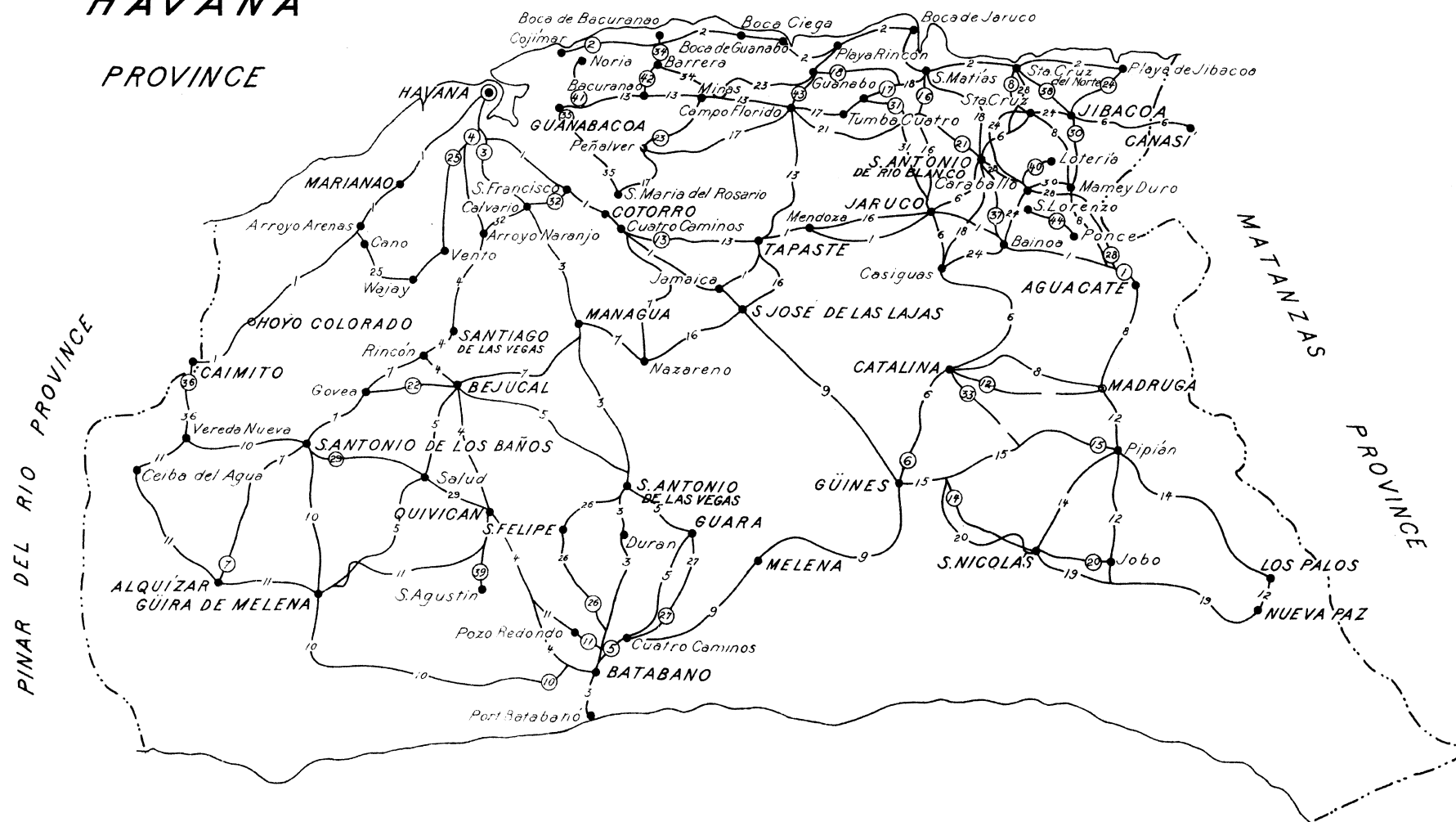
MAP INDEX

OF

ROAD NOTES PERTAINING TO

HAVANA

PROVINCE



PROVINCE OF MATANZAS.

ROAD No. 1.

MACAGUA (ARABOS)—COLÓN—RETAMAL—PERICO—QUINTANA—JOVELLANOS (BEMBA)—ISABEL—CORRAL FALSO (PEDRO BETANCOURT)—NAVAJAS—GÜIRA—BOLONDRÓN—LIMONAR—MATANZAS—AGUACATE.

General direction: W. Distance: 107.5 miles.

NOTE.—During 1908 a metaled road was constructed connecting Matanzas and Ceiba Mocha.

IN GENERAL.

1. Macagua to Colón.—A fairly good dirt road in dry season, not graded or ditched. Practicable for wheel transportation in dry season only.

2. Colón to Quintana.—A rough and very narrow road. Could be used by bull carts or very lightly loaded wagons in dry season. This road passes over the El Roque region, which, during the rainy season, is flooded and roads are as a rule impassable.

3. Quintana to Jovellanos.—A hard dirt road, practicable for bull carts and light-loaded wagons in dry season; impracticable for wheeled transportation in rainy season.

4. Jovellanos to Isabel.—Fairly good dirt road about 20 feet wide, no drainage, and badly cut up by ruts. Passable for all arms and wagon transportation in dry season, but would be very difficult in rainy season, as surrounding country is low and road would be covered with water. Country on both sides of road low, level, cultivated, sugar-cane country.

5. Isabel to Navajas.—A good hard road, 30 feet wide. Practicable for loaded wagons and bull carts during dry season. From Corral Falso (Pedro Betancourt) to Navajas is a macadam road.

6. Navajas to Bolondrón.—A fair dirt road running over flat cane land, and suitable for wagons in dry season.

7. Bolondrón to Limonar.—Fairly good dirt road over generally level country for 2 miles, then usual Cuban public road through hilly country for 6 miles, then trail impracticable for wheeled transportation for 2 miles, then fairly good unimproved dirt road for 5 miles to

Limonar. Light loads and field artillery could get through, but with difficulty, over portions of the route. The use of pack animals would save time.

8. Limonar to Matanzas.—First part of road a fairly good dirt road, rough in places for 2 miles. Rest of distance to Gelpe very rocky and apparently little used by wheeled transportation. Gelpe to Matanzas, good dirt road to Bellamar Caves. Excellent macadam road to Matanzas. There are no serious grades, but rocky, washed-out character of road in places would render it extremely difficult of passage by heavy transportation. Tumbadero ford of the Canímar is only practicable during dry season. It would probably be necessary to ferry or bridge this stream during the wet season. There is a small ferry 1.5 miles north of Tumbadero, to reach which would require a detour, beginning at Limonar.

9. Matanzas to Aguacate.—Fairly good dirt road, rough and mere trail in places. Practicable for light loads and country carts during dry season, but impracticable except for pack transportation during rainy season.

IN DETAIL.

Miles from
Macagua.

Leave Macagua (Arabos) and pass through pasture land between wire fences. Cross bed of a stream, Río del Jacán, soft mud bottom. Can not be forded during rainy season. Road runs parallel to railroad on south side of track.

2.2 Here railroad and road cross dry bed of stream, Río de Piedras. Railroad bridge about 75 feet long and 8 feet high.

3.0 A standard-gauge spur runs southwest to the ingenio Aguedita and northeast to a colonia. There is a railroad siding here about 600 yards long.

3.5 The road and railroad cross three dry beds of streams, branches of Arroyo Conclusión. The railroad bridges are about 12 feet high, built on stone piers; two of the bridges are 50 feet long and one 125 feet long.

4.5 Road still parallel to railroad, which crosses dry bed of stream on bridge 200 feet long, 12 feet high, and built on 13 stone piers. Road passes over level pasture land between wire fences. Road passes through wire fence and crosses railroad to north side of track. Road crosses dry bed of stream and passes through a wire fence. Level pasture land. Road follows railroad track. Pass small corral with ramp and passes a cane crane and spur.

6.0 Enter railroad station of Agüica, where there is a cane crane, warehouse, and two sidings.

Pass through pasture land with wire fences on both sides of road. Road runs northwest over an old narrow-gauge railroad grade. No rails. Pass ruins of sugar mill and several stone buildings, partly destroyed. Pass through wire fence and cross dry bed of a stream. Level pasture land. No fences.	Miles from Macagua. 7.0
Ruins of sugar mill, and ascend to hill, wire fences on both sides of road. Pass over a small bare hill 30 feet high. A road branches north.	8.0
Shack to south. Wire fences both sides of road. Hilly pasture land on both sides of road. Ruins of stone buildings on north side of road.	9.0
Wire fences on both sides of road for short distance, where fence on the south is stone. Cane to south and pasture land to north. Small railroad spur 300 yards long, and a cane crane. Reach crossroads.	10.0
Wire fences both sides of road. Open pasture land south and thick brush north. A road branches south to old sugar mill. Cross Río Cochino over a stone bridge 50 feet long, 12 feet high, and 15 feet wide. Road then runs due west and enters Colón. Leave Colón at railroad station on road west through cane fields. Cross Arroyo Bermeja. Wire fences on both sides of road.	12.0
A road runs south through cane fields.	14.0
Retamal. Leaving Retamal on a road following railroad track. Rolling pasture land on both sides. Telegraph and telephone lines on both sides of railroad track. Wooden poles.	16.0
Railroad siding, 150 yards long, with cane crane, branches off to the north. Cane fields on all sides.	17.0
A road branches off to the northeast to colonia San José. Four native shacks on side of road.	20.0
A road branches to the northeast to ingenio Tinguaro; land low.	21.5
About 10 native shacks located on small hill along road. Railroad goes through cut 500 yards long and 10 feet high. Wagon road passes over top.	21.7
Rolling pasture land on both sides of road.	22.5
Standard gauge railroad branches off from main line going 1 mile northeast to colonia Santa Elena.	23.0
Town of Perico. Road leaves town at northwest corner, running about west.	23.2
Road joins and follows railroad.	23.7
A road branches off to the north going to cane fields. Cane on all sides.	24.0

Miles from
Macagua.

- A road branches to southeast to El Roque. This point is known as Las Lagunas crossroad.
- 24.2 Rocky pasture land on both sides of road.
- 25.0 Cane fields on south side of road.
- 26.0 Road leaves railroad track and goes through cane field.
- 26.5 Road passes through old colonia Armonía and turns north, following narrow-gauge railroad track, leaving to the south Laguna El Roque and to the west Laguna Armonía.
- 28.0 Railroad station Quintana. (Quintana is the center of the yearly flood known as the Flood of El Roque, taking its name from the town of that name. The flood rises in the country south of Quintana, flows through El Roque, and at Quintana the railroad tracks are sometimes rendered useless by 5 or 6 feet of water over them. At Quintana the flood crosses the tracks and flows north, emptying into the sea east of Cárdenas. This flood changes completely the character of the country near Quintana, rendering the roads absolutely impassable. During the flood the town of El Roque can be entered only by means of a boat.) Leave Quintana, old sugar mill Tentativa and Laguna Suris to the north, and follow the railroad west, passing over low country covered with water during heavy rains. This country is known as La Sabana de Quintana. Pass ruined ingenio Carambola to north. Enter a defile that runs between chain of hills, Lomas de las Quimbambas. It is 50 feet wide and 600 yards long, banks sloping gradually. The hills are covered with small timber and brush.
- 30.7 Leave defile. Country low and rocky.
- 31.2 Pass ruins of old village to north.
- 31.7 A hill 30 feet high, covered with brush, 200 yards north of road. Hill runs parallel to road for half a mile.
- 32.7 Pasture land. Road inclosed by wire fences. A number of plantation roads, suitable for bull carts, run perpendicular to the main road. They would be difficult for wagons even in the dry season. Country becomes low and rolling. Road very bad in places. Sugar cane growing on all sides.
- 33.7 A standard gauge road runs north to ingenio Soledad.
- 34.7 A wire fenced pasture to south.
- 35.7 Enter Jovellanos (Bemba). Road leaves Jovellanos going south, and passes over stone bridge over Arroyo Gober, flowing into Río Cimarrones; bridge about 30 feet long and 18 feet wide, 12 feet high, passable for heaviest

transportation. Road runs south through level country, fenced by wire at places; growing fields of cane on both sides.

Miles from
Macagua.

Ingenio Victoria on east side, distance about 0.5 mile. **37.7**

Rosita, a small cluster of shacks. Large crane for loading sugar cane and small cane press. Rosita is end of branch line of U. H. R. R. from Isabel to Rosita. From Rosita road turns to southwest. At turn, road passes end of range of hills about 80 feet high. Hills command road at turn. **39.7**

Branch road turns south to Santa Sofia; continue south. **40.2**

Road passes Carlota, ruins of old sugar mill. Here the road turns south and is bordered on both sides of road by palm trees for 0.5 mile. **41.7**

Road turns west for 0.2 mile and then turns again south. **42.7**

Ingenio Elizalde. **43.7**

Road follows along plantation railroad south. From this point there is no marked road to Isabel. The country is a large swamp. To the west is Laguna Masio. The only means of travel is on the railroad track, which at places has a grade 12 feet high. **44.7**

Isabel. Leave Isabel, going west along railroad. **45.7**

Pass native shacks on north side of road. **46.7**

Ground low and cultivated. **47.2**

Woods to north of road. **48.2**

Cross railroad track. **49.2**

Pass on north side of a large pond called Laguna de Macuriges, Laguna Masio to north. **49.7**

A small, dry drainage canal crosses road. **51.2**

Enter Corral Falso de Macuriges (Pedro Betancourt). Go west. Pass over a new macadam road and reach Navajas. Leave gate south of railroad station, taking road bearing 245°. **52.7**

Bearing 225°. **55.5**

Bearing 260°. **56.4**

Meets cross road connecting with main road near railroad between Navajas and Güira. **56.7**

Passes group of houses. **57.0**

Reaches San Miguel de Azopardo. From here road takes general direction of 300°, but winds almost constantly to ingenio La Flora. **57.7**
59.4

Miles from
Macagua.

- Güira. Leave Güira on road running northwest.
- 59.5 Road turns west and crosses spur of railroad running north to Nieves.
- 60.0 Cross main line of railroad and go west.
- 61.0 Pass ingenio San Rafael and run parallel to the narrow-gauge road of this ingenio.
- 62.0 Bolondrón. Leave Bolondrón by street running nearly north and south past the ayuntamiento and plaza. The waterworks with pumping station are just to west on edge of town.
- 62.5 Turns due north.
- 63.0 Turns due east and crosses rocky bed of creek now dry, but evidently a torrent in wet season. After crossing creek, again turns north and runs up a narrowing valley with ascending grade.
- 65.0 Line of cliffs 0.5 mile to west (50 to 100 feet). Turns to east for 300 yards and again turns north, but is rough; and at 65 yards it is advisable to turn slightly to west through stone fence and cross cane field in northeast direction 0.5 mile to camino Real again, which runs due north.
- 65.5 A road branches to northeast 1 mile to cane station called Morejón on private railway from Bolondrón. Runs up a considerable grade and is here cut or washed out to a depth of about 12 feet, and this condition continues on nearly all slopes for about 2 miles. Some of these sunken places are almost impassable for wheels, but generally the country is open and they may be avoided.
- 66.7 Here crosses small muddy creek; 18 inches of water and probably almost impassable in wet season. Country rolling, mostly in cane, and plantation roads cross and recross in all directions, but are not permanent; lead to fields; should be avoided. Road changes direction from northeast to northwest.
- 67.0 Steep rocky hill, grade 20° , wheeled transportation must make detour.
- 67.5 Small stream at foot of south slope. Ascends another
- 68.0 long steep hill and descends to Río de Auras, a roadside bodega. There is a good well in an inclosed yard back of this store. (A road branches to northwest to Sabanilla.)
- 68.5 Road runs northeast from here, crosses small muddy stream, Río Mosas; and after gaining top of hill turns east off camino Real and angles across rolling fields by
- 69.5 good dirt road to ingenio Saratoga. Leave Saratoga

from near manager's house and tank; runs slightly west to north, keeping close to evidences of old camino Real. Miles from Macagua.

Crosses small muddy creek and continues until it meets the public road left at 68.5, which ends here on top of high hill commanding view of wide valley to north. From here two trails branch, either of which eventually reach Limonar. One to east goes via ingenio Limones, and is best. Runs northeast down Río Yaiti by steep, rough slopes and through 4 gates through wire fences to emerge on flat, where it becomes good dirt road, and continues to ingenio Limones. Leaves Limones near mill and runs nearly north. 70.5
72.0

Crosses small stream by rough log bridge. This stream, by indications, probably overflows banks in rainy season and carries 10 to 12 feet of water. Can be crossed on railway bridge of private line to Limonar, 0.2 mile east. 72.5

Crosses plantation railway and follows it northwest to point where it leaves railway and turns due north to Laguna de Palo, where there is a bodega, brick yards, and excellent public well. Country gently rolling. Precipitous limestone ridge (50 to 100 feet) 1 mile east extends from near ingenio Limones to within 0.5 mile of Limonar; running nearly north and south. This point is the center of a considerable firewood industry, and this furnishes all requisites for camp for a battalion or more. Continues due north through flat country. 74.0
75.0
76.0

Limonar. Leave Limonar on main street running north. At church turn west to cemetery. 77.0

Runs north 200 yards past cemetery, then turns northwest across open field to camino Real; then nearly west. Country rolling and rough. 78.0

A road branches north. Road continues up gradual ascent to a point of summit, where road forks. (South fork leads down rocky slope and across swampy ground—impassable in rainy season—to ford of Canímar.) Take north branch which runs down short slope and then nearly level to near Canímar, where it descends by steep slope to Tumbadero ford. Río Canímar is here 2.5 feet deep and 25 yards wide. Ford angles about 45° upstream, going from east to west bank. Camp ground with all essentials for battalion on slope above western bank. Road runs up this slope and through stone fence at top to camino Real. 78.5
80.0
80.7
81.0

Miles from
Macagua.

- Runs nearly west and for over a mile keeps close to edge of deep arroyo. Country covered with thick brush.
- 82.5
- 83.0 Passes through gate and turns northwest for 0.2 mile, thence due west; country same; no cultivation.
- 84.0 Reaches summit of ridge east of Canímar, where Matanzas Bay and city may be seen. Ruined ingenio just to south of road near here.
- 84.5 Runs north 200 yards. (At this point roads branch to south to Guanábana and northeast to finca.) Country nearly level; soil, red clay; cane land.
- 86.0 Road cut down 2 to 5 feet like miniature canal, which it probably is during rainy season. Ruined buildings to north, 0.5 mile.
- 87.0 Crosses bed of Río Buey Vaca by steep but practicable slopes to Gelpe station and bodega on U. H. R. R. Crosses track (at 200 yards west roads branch south to Guanábana and north to country). Passes just to north of new bodega and enters narrow level dirt road through extensive hemp fields.
- 89.0 Passes through gate, and at 300 yards beyond passes entrance to Bellamar Caves, just beyond which it runs into macadamized road running slightly north.
- 90.0 Crosses tracks of U. H. R. R. and turns to southwest down long gentle grade, and then west for 100 yards to the playa, where it runs along the shore of the bay. Macadam road leaves bay, crosses tracks, and passes passenger station to head of calle Tirry. A road runs from 91-mile point along the bay to the electric-light plant, and then along a street to the end of Calixto García Bridge.
- 91.0
- 92.5 Follow Canasí-Corral Nuevo-Matanzas-La Cidra-Sabanilla-Alacranes-Unión-Bolondrón road from Matanzas, 16-mile point to 17.5-mile point. Road continues west and slightly south along U. H. R. R. track. No grades.
- 94.5 Crosses track and continues south to crossing San Juan River, 40 feet wide, 2 feet deep, with firm, sandy bottom.
- 95.0 Unfordable during rainy season, when crossing would have to be made on railroad bridge 250 yards west of where road crosses track. After crossing river, road turns abruptly west. (A road here ascends steep hill to south and runs to ingenio Jesús María.)
- 95.5 Runs west and crosses track to north side again. Keeps approximately along track.
- 96.5 Schoolhouse and bodega. A road branches here and crosses track to country south. Runs slightly north

of west, good dirt road, quite level, descends slight slope to point near aqueduct of Matanzas water company. Inclines to south of west through gently rolling country, evidently very swampy in low places during rainy season.	Miles from Macagua. 97.5
Crosses railway track to south side and fords Las Cañas River just above railway bridge, which is 100 yards west of where road crosses track. Stream (source of Matanzas water supply) is 40 feet wide and 2 feet deep, strong current, firm, gravelly bottom. Ford inclines 40° upstream (crossing from east to west). Railway bridge would have to be used in rainy season. Excellent camp grounds for any-sized force near here. Runs along track by mere trail to cane-weighing station and side track. Turns south. (Troops may march to Benavides along track, but wagons must follow road.)	99.0
Passes pumping station and reservoir of Matanzas water company, and a point 0.2 mile beyond turns to west near track of private railway, Benavides to San Francisco de Paula and ingenio Jesús María. (A road here branches south.) Runs 200 yards east and inclines somewhat north to Benavides station; bodega and school-house on U. H. R. R. Runs along track by trail, difficult in dry season and impassable in wet season.	99.5
Acosta, station on railway. Here runs south, passing end of low-wooded limestone ridge (25 feet high) over small, bare hill.	100.5
Runs due west to main road through American settlement, where it turns northwest and continues generally in this direction to Ceiba Mocha, town on U. H. R. R. Leave Ceiba Mocha on road running west.	100.7
A bull cart road runs north.	101.5
Pass La Cameria, finca, north of road.	102.5
Cross railroad track and enter Aguacate. (During 1908 a metaled road was built from Guanabana east, through Limonar and Guamacaro, to Lagunillas. This completes metaled roads connecting Habana and Cardenas via Matanzas.)	103.0
	103.5
	104.5
	105.5
	107.5

ROAD No. 2.

MOTEMBO—ITABO (LACRET)—HATO NUEVO (MARTÍ)—RECREO (MÁXIMO GÓMEZ)—CÁRDENAS—VARADERO—MOUTH OF CAMARIOCA RIVER—CARBONERA—LA MAYA—CALETA DEL BARCO—ANDARIVEL—CASTILLO DEL MORRILLO—MATANZAS.

General direction: W. Distance: 87 miles.

NOTE.—During 1908 a metaled road was constructed running north from Salés to Varadero, also one south from Salés to Cantel.

IN GENERAL.

1. Motembo to Recreo.—A fairly good dirt road, but rough in places. The portion from Motembo to Itabo is a mere trail. From this latter place west wagons can pass during the dry season.

2. Recreo to Cárdenas.—A path over low, swampy pasture land, a portion planted in cane. Impracticable for wagons.

3. Cárdenas to Varadero.—As far as ingenio Precioso there is a macadam road, and from there to Varadero a bad dirt road suitable for carts. When the macadam road from Salés to Varadero has been completed, wagons should go by that route instead of continuing to Precioso.

4. Varadero to mouth of Camarioca River.—A wagon road following the coast. It is very sandy.

5. Mouth of Camarioca River to La Maya.—A wagon road following the coast, sandy in places. Rate of march would be slow.

6. La Maya to Matanzas.—Rocky and steep in places as far as Morrillo; from that point easy traveling.

IN DETAIL.

Miles from
Motembo.

- | | |
|-----|---|
| | Leave Motembo, going west over a wooded country. |
| 1.5 | Cross branch of Río de la Palma. Stream 20 feet wide and 3 feet deep. Approaches steep and boggy; river bottom sandy. |
| 2.5 | Fences on both sides of road. |
| 3.3 | Pasture lands on all sides. |
| 4.0 | Cross hill 50 feet high. Approaches steep and rocky; thick woods on all sides. |
| 4.2 | Colonia Amaros. Ruins of ingenio. |
| 5.5 | Cross dry branch of Río de la Palma. |
| 6.0 | Chicago Colony. American settlers. |
| 7.0 | Low-wooded pasture land on all sides. |
| 7.5 | Town of Itabo (Lacret). Go west. |

Colonia Victoria. End of narrow-gauge road and cane crane. Few shacks.	Miles from Motembo. 8.0
Ingenio Guipúzcoa. Reach railroad.	9.0
Road south to ingenio Santa Gertrudis.	10.8
Town of Hato Nuevo (Martí). Follow railroad west.	11.8
Road continues west along railroad. A road branches northwest to ingenio Guipúzcoa. Take latter road.	12.5
Sierra de Hato Nuevo 100 yards to south.	
Ingenio Guipúzcoa. Wooded hills northwest of ingenio.	13.5
Leave ingenio and go southwest.	
Rejoin the road that follows railroad.	14.5
Wooded hills commanding road. Ruins of old ingenio.	15.8
Cane on all sides.	
Hill 800 yards south of road. Pasture land.	16.0
Railroad station of Sabanilla de la Palma. Go south.	17.5
Spur from railroad runs 500 yards south into cane fields to crane.	19.0
Ingenio Santa Catalina.	21.0
Recreo (Máximo Gómez). Leave Recreo by road passing near cemetery, running southwest. Pass cane fields with no fences. Pass ruins of ingenio Coloso.	22.5
A bridge, wooden spans on stone piers, with railroad iron as platform; 200 feet long, 15 feet wide, and 4 feet high. Under this bridge flows in a northwest direction the water from the flood known as that of El Roque. No steep grades. Surrounding country flat and low. This bridge is known as "La Puente de Carolina." During heavy floods it is under water, but such a condition does not continue for any length of time. Cross bridge and take road northwest.	26.5
Rancho del Medio. Three roads from this place. One south, one east, and one west. Take road west. Road assumes a northwest direction.	28.0
Cane on all sides; no fences.	30.2
Colonia La Flora. This is the end of a narrow-gauge railroad from ingenio Soledad.	31.0
Cross old Spanish road running east and west from San Anton to Lagunillas. This road is overgrown with grass.	34.0
Cross small stream on wooden bridge 20 feet long, 4 feet wide, and 6 feet high. Open pasture land. No fences.	35.0
Ruins of old stone building and wind mill.	36.0

Miles from
Motembo.

- Road runs north. Pasture land and wire fences. Pass through a gate. Road runs south to Contreras.
- 37.0 Cross dry bed of stream and pass ruined ingenio. An old bridge in bad repair crosses this stream.
- 38.0 Pass house to east. Road becomes a path.
- 40.0 Fork of road. Pasture land.
- 40.5 Road crosses a small stream, Río Siguaguas. Open pasture land. Stone fences both sides of road. Cross a bridge over small stream, stone piers and railroad rails for platform.
- 41.0 A road branches east to a colonia. Ingenio Progreso 1 mile south. Cane and pasture land south.
- 42.0 Road continues north. A road branches southeast to old ingenio. Pasture land. Stone fences along road.
- 43.0 Cane to south. Open pasture land to the north. Stone fences along road.
- 44.0 Fork of road.
- 44.5 Pass through level pasture land; road fenced with wire. Pass stone blockhouse and bridge and enter
- 45.5 Cárdenas. Leave Cárdenas on the macadam road running northwest from Thirteenth street. Pass blockhouse on right. The country between the road and Cárdenas bay is low and rocky near the road, and marshy near the bay. The country on the left is rocky and used for raising cattle. The road is inclosed by stone walls about 4 feet high and 2 feet thick.
- 46.0 Cemetery on the left. Here the road makes a right angle to the left, running in the new direction for 400 yards and then turns west. A telephone line, two wires, runs along the right side of the road.
- 47.0 A wagon road south to Cantel.
- 48.0 Cuatro Caminos. From here a macadam road is being built to Cantel.
- 49.0 Salés. From this point a macadam road is being built to Varadero.
- 50.0 Ingenio Precioso. From the ingenio take a road running north following parallel to the private railroad of the sugar estate.
- 51.0 Vega. Here a plantation railroad of ingenio Dos Rosas runs west and south and joins the Precioso plantation railroad at Dolores. The Precioso road referred to runs from Siguapa through the ingenio to a finca called "Coronela Justiz" (old cafetal El Paraíso). Pass settlements of Esperanza, Las Guásimas, and La Cachurra,

all located on the low ground and liable to flood during rains. Miles from Motembo.

Siguapa—shipping point of ingenios Precioso and Dos Rosas. From Siguapa a poor road runs northwest to the Guásimas-Varadero wagon road. 55.0 56.5

La Cueva del Muerto. 56.7

Paso Malo. An outlet from Lake Camacho to Cárdenas bay. Country low and swampy. At this point the new macadam road building from Salés to Varadero crosses, and a masonry bridge is under construction. 57.0

Varadero. From this point a road through the sand runs out to the end of the Peninsula de Hicacos. Leave Varadero going west along the coast. 59.0

Pass three lagoons on the right (a trail also to the left) known as "Lagunas de Camacho." They are salty and about 3 miles long and 1,000 yards wide, with low banks, covered with vegetation. 61.0

Pass Laguna de la Boca on the left; salty; 0.5 mile long and 200 yards wide; surrounded by a mangrove swamp. 63.0

Mouth of the Camarioca River. This river forms a small bay at its mouth 600 yards wide. At the head of this bay are the ruins of a bridge. Follow up the right bank of the river 0.5 mile to Iscano, and ford river. Go down stream on left bank to Boca. Take wagon road west along coast. 63.5 64.0 64.5

Punta Brava and Punta Gorda, two rocky peninsulas extending into sea. At Punta Gorda there is a small playa where boats can land. This has been the landing place of Cuban expeditions. 65.5

Carbonera. A small finca near coast. Ruins of a Spanish redoubt. A trail from this point runs south into the country known as Las Piedras de Camarioca a Cuban stronghold of importance. 68.5

La Sepulture. A reentrant angle in the coast where there have been many wrecks of small vessels. 69.0

Pozo, a finca. A trail runs from this point to Las Piedras. Here the road forks; right-hand branch to La Maya, north of Lagunas de la Maya, and left-hand branch south of the Lagunas to Matanzas Bay. Take right branch and continue to follow coast. 69.2

Pass Las Lagunas de la Maya, three in number, surrounded by mangrove swamps. They are connected with Matanzas Bay by a narrow canal 3 feet deep, emptying south of the light-house. 72.0

Miles from
Motemba.

- 73.0** Punta Maya light-house. Cistern water. Ruins of a Spanish battery, in which are mounted several old rifled guns. This work constituted a portion of the defenses of Matanzas, 1898. The right of this work rests on a swamp. From La Maya take a trail south following along east coast of Matanzas Bay.
- 74.0** Pass Caleta del Barco, a small harbor with sand beach. Ruined Spanish blockhouse and defensive stone wall.
- 76.5** Reach mouth of the Canímar River and road turns upstream.
- 77.0** Road becomes very rocky and gradually ascends to a high, rocky cliff. On this high plateau are located Pozo, Falcón, Cairo Chico, Manantial, Cairo Grande, and La
- 78.5** Dionisia, fincas. Road descends and reaches Andarivel. This is where the main road from Cárdenas to Matanzas crosses the Canímar River. There is a rope ferry here large enough to carry an army wagon. The first ford of this river is Tumbadero, which is 12 miles upstream from the mouth. It can be used only during low water. Cross the river at this ferry and follow road west.
- 80.0** Crossroad. The main road continues west to Matanzas. Take road north known as El Camino del Morrillo. Country hilly and rough.
- 82.0** Castillo del Morrillo. An old Spanish battery built of cement and commanding the river mouth. Condition fair. On the left of this work are located two batteries of sand mounted with old smooth-bore guns. A part of the Spanish defenses of Matanzas, 1898. Take coast road west.
- 83.0** Cross Río Buey Vaca.
- 84.0** Pass old Spanish battery of Peñas Altas; cement.
- 86.0** Cross railroad.
- 87.0** Enter Matanzas.

ROAD No. 3.

MURGA—JAGÜEY GRANDE—TORRIENTE (CLAUDIO)—CUEVITAS (AGRAMONTE)—QUINTANA—JOVELLANOS (BEMBA)—CONTRE-RAS—CÁRDENAS.

General direction: NW. Distance: 69.6 miles.

IN GENERAL.

1. Murga to Jagüey Grande.—A small, rocky road, which in places becomes a mere trail. It could be used for bull carts and light-loaded wagons in dry season. Road about 10 feet wide, not ditched.

2. Jagüey Grande to Torriente.—A dirt road, very rocky and full of ruts, impracticable for any but light-loaded wagons in dry season and impracticable for any kind of transportation in wet season. The road is about 15 feet wide, no ditches and no fences.

3. Torriente to Cuevitas (Agramonte).—A dirt road, very rocky and full of ruts, impracticable for any but light-loaded wagons in dry season and impracticable for any wheel transportation in wet season. The road is about 15 feet wide and is not ditched.

4. Cuevitas (Agramonte) to Quintana.—A fairly good dirt road, but very rocky for the first half of the distance. Road about 12 feet wide and not ditched. Practicable for bull carts and light-loaded wagons from Cuevitas to half the distance; from there practicable for bull carts in dry season only. Road not graded or ditched.

5. Quintana to Jovellanos.—A wagon road following railroad track. Liable to overflow during rainy season.

6. Jovellanos to Contreras.—A fairly good dirt road in the dry season only; largely black soil that would be impassable in the rainy season. In the dry season available for any wheeled transportation.

7. Contreras to Cárdenas.—A fairly good dirt road with two or three rocky grades of 6°, which would probably require the assistance of infantry with the wagons. Practicable for any transportation under the conditions mentioned.

IN DETAIL.

Leave Murga, following the railroad in a general north- Miles from Murga.
west direction.

A road running north and south crosses the railroad 0.7
track.

Standard-gauge spur of railroad runs southwest into 1.7
cane fields for about 150 yards. Land high; cultivation.

Road and railroad cross a bridge 15 feet long, 10 feet 2.0
wide, and 4 feet high. Bridge of cement piers with iron
girders; plank flooring.

Cultivated land on all sides; stone fences along road. 2.7
Land low at places.

Standard-gauge railroad spur 150 yards long running 3.7
south to cane fields.

Rolling pasture land; road fenced with wire. 5.2

Ingenio Australia south of road. Two standard-gauge 5.7
railroad spurs run southwest; one 3 miles long and the
other 1.5 miles long.

Enter Jagüey Grande. Road leaves Jagüey Grande, 7.2
following the railroad track, running due west on the
south side of the track. Country level on both sides and

Miles from Murga.

- 8.2 cultivated on both sides back from road. Road bordered with trees, very rough and rocky and cut up with ruts. Road branches north to Jabacó.
- 8.9 Small standard-gauge spur about 200 feet long on north side of track. Old ruins of stone house on west side. Road rocky. Branch road runs north to finca Jocuna.
- 10.7 Small station, called Crimea. Country rough and cultivated in parts, and hilly pasture in other parts. Two sidings, about 600 yards in all. One spur running to crane for unloading sugar cane about 200 feet long. Station building; siding runs alongside. Road very rocky. Road branches north to Unión via Santa Rosa.
- 11.4 Road fenced on both sides with stone fence. Cane fields both sides.
- 12.2 Small station. Spur about 200 feet long for unloading cane. Road goes south to San Joaquín de Pedroso.
- 13.2 Heavy underbrush on both sides of road; stone fence on south side of the road and wire on the north.
- 15.2 Village of Torriente (Claudio). Road leaves Torriente from east end running due north; small cane fields on west side; pasture land on both sides after passing small cane field; fenced with wire. Road about 15 feet wide, and rocky.
- 15.4 Road branches to west; level pasture on both sides.
- 16.7 Road branches east; pasture land both sides.
- 17.7 The road turns east; branch road running west, and branch road running north to Pedro Betancourt. Level pasture land both sides.
- 18.9 Road turns northeast, running through level pasture land; not fenced.
- 20.4 Road turns north, passes ruins of old stone buildings to east; road fenced on both sides with wire. Branch road running south.
- 21.2 Road passes small store on west of road, and turns east; branch road running north to Isabel; cane north of road and level pasture land south; wire fences both sides. Road running west to Socorro.
- 23.2 Branch running south to road between Torriente and Jagüey Grande. Branch road running north to Jovelanos. Road very rough and rocky; fenced on both sides with stone fence.
- 25.2 Branch road runs south to Crimea; level pasture land on both sides.
- 26.2 Two roads branching into cane fields—one north and one south.
- 26.7 Road branches south to Jabacó.

Road branches north to Agramonte-Isabel road; cane fields both sides. Miles from Murga.
27.7

San Ignacio (ingenio). Road leaves ingenio of San Ignacio at northeast corner and runs northeast. Branch road running northeast through cane fields; road fenced on both sides with wire; cane both sides. Telephone wire following road. 28.2

Road runs alongside of branch railroad of San Ignacio. Branch road runs southwest to Venturilla. Road branches northeast to colonia of Maravilla. Road fenced both sides. Stone fence. Level pasture land both sides. One road turns north; road turns north. Branch crosses railroad to east to Mangueto; branch road runs west to Isabel. 28.7

Road crosses narrow-gauge railroad running to ingenio Unión, and enters Agramonte (Cuevitas). From Torriente to 25.2-mile point, road is very rocky and cut up with ruts; impracticable for any but light-loaded wagons. From 25.2-mile point to ingenio San Ignacio road practicable for wheel transportation in dry season. Road leaves Agramonte from north end of main street. Just out of town passes old stone blockhouse on east; about 15 feet square and 20 feet high, walls 2 feet thick. Level pasture land both sides of road. Road fenced; stone east and wire west sides; 1,000 yards, stone fence on east side ends; wire on both sides. 29.7

Branch road runs east; level pasture all sides; wire fence both sides. 30.4

Branch road runs east. Stone fence east and wire west; level pasture land both sides, with very small cane fields at intervals. 31.2

Passes small house on both sides of road, small grove of trees on east side, level pasture land all sides. 31.7

Branch road runs west to ingenio Unión. Road turns northwest; stone fence east, wire west. 31.9

Branch road turns west; cane on west side. Stone fence east side; rocky pasture land all sides. Road very rough and rocky. 32.7

Road branches west through row of palm trees. 32.9

Grove of palm trees to east, cane west. Stone fence on east side and bamboo on west side; level pasture land on west side. Road fairly good. 33.7

Several small groves of palm trees on east side, with cane growing between; level pasture west. Stone fences both sides. 34.2

Miles from Murga.

- 34.9** Branch road runs east and west. Large grove of palm trees east; cane on both sides; stone fences both sides. Road good.
- 35.7** Passes small house on west side. Cane all sides. Stone fence east and wire west. Road good.
- 35.9** Branch road runs west. Cane west, pasture land with underbrush east. Stone fences both sides. Road good.
- 36.4** Branch road runs northeast through pasture land. Level pasture to east and cane to west. Stone fences both sides. Road fair.
- 36.7** Branch road runs west. Cane to west and open pasture to east. Stone fences both sides. Road rocky.
- 37.4** At this point are crossroads. One road running north and south and the other running east and west. Take road running east. Cane to north. Open pasture land south, wire fence on north.
- 38.0** Enters low country, thick underbrush both sides, stone fence on north side; passes small house on north side.
- 39.2** Passes small house on north and goes through wire fence; gate in fence. Underbrush both sides of road; no fences; road very rocky.
- 41.7** Road passes through wire gate; passes large lake on north about 0.5 mile distant; light underbrush on all sides; very rocky.
- 42.7** Passes through wire gate and runs through open, rocky country, no fences; large grove of palm trees on road about 600 yards from gate.
- 42.9** Passes small house on north; goes through wire gate into road lined with palm trees, and about 500 yards passes through another wire gate and turns north. Stone fence on west of road and wire east. From this point back to the 38-mile point, road is cut through rough, rocky swamp, which in rainy season is from 4 to 6 feet under water. Impracticable for any kind of wheel transportation except bull carts.
- 43.7** Quintana. (From Quintana to Jovellanos, *see* Macagua—Colón - Retamal - Perico - Quintana - Jovellanos - Isabel - Corral Falso - Navajas - Güira - Bolondrón - Limonar-Matanzas-Aguacate road, from 28.2-mile point to 35.7-mile point.)
- 51.2** Jovellanos (Bemba). Leave Jovellanos at east end of calle José Martí, going northeast.
- 51.7** Cross railroad.
- 51.9** Cross branch railroad to ingenio San Vicente.

Pass ingenio Soledad on the right. Road runs more to east.	Miles from Murga. 54.0
Recross railroad branch line to San Vicente.	54.5
Leave the camino Real and go northeast through Toscano, a small sugar estate.	56.2
Cane fields to left; soil from here on black and heavy.	58.2
Pass lake.	58.5
A road branches east to San Antón de la Anegada.	59.0
Mud hole, impassable in rainy season; flat country on all sides.	59.8
Pass uncultivated land and brush to left and pasture land to right, and enter Contreras.	62.9
Leave Contreras. Cross bridge over Río Siguaguas on three stone abutments 8 feet high, on which rest 5 pieces of timber, which in turn bear the roadway, consisting of rails 33 feet long, the bridge being 24 feet wide. This bridge crosses small arroyo 3 feet deep, which is reported to rise above the bridge in rainy season. Leave the camino Real. Cane land on all sides.	63.0
Reenter camino Real, leaving thick brush to left.	65.2
Road becomes rocky.	66.8
From this point ingenio Progreso is 1 mile to east. A road runs to Lagunillas. Begin descent into very flat cane land. Stone wall on each side of road.	67.1
Pass crossroad to right.	67.6
Stone wall ends. Pass ruin to left. A parallel road runs along the right. Road rocky. Pass through flat, open pasture land and enter Cárdenas at south end of calle Velázquez.	69.0 69.6

ROAD No. 4.

LA YAYA—GUAREIRAS—INGENIO SANTA RITA—CUEVITAS (AGRAMONTE)—ISABEL—JOVELLANOS (BEMBA)—INGENIO OLIMPO—COLISEO—INGENIO PRECIOSO.

General direction: NW. Distance: 75.5 miles.

IN GENERAL.

1. La Yaya to Guareiras.—A rough road, and in places only a trail. Impracticable for wagons.

2. Guareiras to Santa Rita.—A fairly good dirt road, about 12 feet wide, not ditched. Practicable for wheel transportation in dry season only.

3. Santa Rita to Cuevitas (Agramonte).—Fairly good dirt road to 30.9-mile point. From 30.9 to 32 mile point, road is just a path following railroad. From 32-mile point to Agramonte road is fairly good and practicable for wheel transportation in dry season. In rainy season impracticable for wheel transportation. Road about 12 feet wide, not ditched, and rocky.

4. Cuevitas to Isabel.—A fairly good dirt road in dry season. Suitable for loaded wagons or bull carts. Wheel transportation should continue to Central Unión on road running west through cane fields. Road 15 feet wide; not ditched.

5. Isabel to Jovellanos.—A fairly good dirt road, about 20 feet wide. Passable for wagons in dry season. Surrounding country low and liable to floods.

6. Jovellanos to ingenio Olimpo.—A dirt road, 30 feet wide, fairly good in dry season, practicable for bull carts and loaded wagons. During wet season road becomes rough and not suitable for loaded wagons. Road ditched on both sides.

7. Olimpo to ingenio Carolina.—A bull-cart road over low country.

8. Ingenio Carolina to ingenio Precioso.—Through the Guamacaro valley, where the land is low and swampy, and would be difficult for any wheel transportation in rainy season. After the rocky country is reached, north of this valley, the roads could be passed during any season, but with difficulty.

IN DETAIL.

Miles from
La Yaya.

Leave La Yaya on a very good dirt road running northwest through wooded land. Practicable for wheel transportation in dry season.

2.0 Open, cultivated fields on both sides.

3.5 Road crosses Río de la Luz, bottom hard and approaches good.

5.0 Road joins railroad, following on northeast side. Telegraph line, wooden poles, on southwest side. Pasture land both sides.

6.5 Cane fields southwest side.

10.0 Fenced pasture land southwest side.

12.0 Cumanayagua.

12.5 Low land on both sides. Wire fence west side.

13.5 Cane fields on both sides.

14.0 Railroad bridge crosses depression in land. Bridge 20 feet long, 6 feet wide, and 6 feet high, made of wood.

15.0 Spur, standard gauge, branches off to west, 200 yards long, running to colonia La Faju. Cane fields all around.

	Miles from La Yaya.
Spur, standard gauge, 300 yards long, branches off to east, to colonia Calabaza.	15.2
Rolling pasture land both sides.	16.5
Ruins of old stone railroad station on west side of road.	16.7
Road branches off to east to ingenio Mercedes de Corralillo.	17.2
Pumping station on east side of road. Spur branches off to ingenio Mercedes.	19.0
Road runs west.	19.4
Road joins road running from Guareiras to La Vega.	20.5
Guareiras (railroad station). Road leaves Guareiras, following north side of railroad line running to Cuevitas. Cane and wire fences both sides. Road running north-west.	21.5
Road crosses railroad; wire fences and cane both sides. Telegraph line, 3 wires, following road.	21.7
Road passes colonia. Branch road runs south to colonia Santa Basilia. Cane all sides.	24.0
Road turns due south through gate, branch road running north and east through cane fields. No fences.	24.5
Road passes finca Laberinto, old ruins of sugar mill. Country to south as far as Caney subject to overflow. Cane fields in all directions. Country low and level. Road turns due west. No fences.	25.5
Level pasture all sides. No fences.	26.0
Large pond of water to south 0.5 mile distant, Laguna del Mulato. Level pasture land all sides. Railroad about 400 yards south of road.	26.2
Road crosses railroad south side. Cane both sides. No fences. Laguna Pedrera to north.	26.5
Small pond south. Level country both sides. Cultivated cane fields both sides. Country very low.	27.5
Ingenio Santa Rita. Laguna la Carraca to the south. Road leaves ingenio from west side and follows spur connecting ingenio with main line. Country level; not cultivated.	28.5
Road passes station on main line where branch from ingenio connects. Two sidings, 500 and 600 feet long. Road follows main line west; not fenced. Cane both sides. Road on south side of railroad track.	29.2
Passes Barró, small cluster of thatched houses; high stone wall on north side of track about 300 feet long. Branch road running south. South side level pasture, wire fenced. Cane on north side. Road nothing but a bridle path.	30.9

Miles from
La Yaya.

- At this point railroad crosses dry bed of stream.
- 31.5** Bridge about 100 feet long, 18 feet high. Iron girders on four stone piers. Railroad grade about 18 feet high. Heavy timber both sides of track. Bridle path.
- 32.0** Small spur north side of track about 300 feet long. Road on south side of track very rocky, no fences, cane both sides. Two hundred yards west of spur road turns south through cane fields. Road rocky.
- 32.5** Road passes small colonia, old cane fields both sides.
- 32.7** Road turns southwest; open, rocky country both sides; no fences, and road very rocky, but rocks are small.
- 33.0** Road turns west, passes two small houses and banana grove on north side. Country level and rocky; no cultivation.
- 33.2** Crossroad running north and south. Stone fences both sides of road. Open pasture land both sides.
- 33.7** Road branches to north. End of stone fence on north side of road. Rocky pasture lands both sides of road. Stone fence south and wire north.
- 34.0** Branch road runs south. Pasture north; cane south.
- 34.5** Cuevitas (Agramonte). From Cuevitas to central Unión, a cart road runs northwest along the south side of the railroad, through cane fields.
- 36.5** Central Unión. After passing Unión, follow road running west from west side of mill. Cane fields both sides.
- 37.0** Cemetery inclosed by cement wall 30 yards square, 5 feet high, 2 feet thick, located on south side of road. Pasture on all sides; stone fence south side of road.
- 39.5** Low depression running north and south; pasture land both sides.
- 40.2** Land higher. Woods commanding road at 200 yards south side. Cane fields north side fenced by wire and cactus.
- 40.5** Road passes colonia Satélite; cultivated land all sides.
- 41.0** Unfenced, rocky pasture both sides of road.
- 41.5** Thick woods commanding road both sides.
- 42.2** Lagoon 100 yards south of road. Stone fences both sides. This lagoon is never dry.
- 42.5** Cane both sides of road.
- 43.5** Road crosses main road running north and south, connecting colonias Isabel and Rueda.
- 44.0** Road turns northwest, passing through cane fields. Stone fences both sides.

Road crosses Matanzas Railroad and enters Isabel at depot. (From Isabel to Jovellanos, *see* Macagua-Colón-Retamal-Perico-Quintana-Jovellanos-Isabel-Corral Falso-Navajas-Güira-Bolondrón-Limonar-Matanzas-Aguacate road from the 35.7-mile point to the 45.7-mile point.)

Miles from
La Yaya.

44.5

Jovellanos. Leaving town on the northwest at Máximo Gómez street, crossing railroad, take road running northwest; land cultivated and fenced on both sides.

54.5

Road branches off to north going to Cimarrones; fenced pasture land on both sides.

55.0

Underbrush on each side of road for about 300 yards, then opens into level piece of pasture land on west side. Sugar cane on east side. Wire fences on both sides.

55.5

Road leaving main road; fenced pasture land on east side; sugar land on west.

56.2

Road runs into small sugar plantation called La Rosa de Madan. A single track railroad, standard gauge, running south from mill to main line. Telephone wire following railroad. One siding runs to stone storehouse 50 by 20 feet. No platform for loading or unloading. Water is pumped from well by windmill into large iron tank about 150 yards north of mill. Water is good; wood scarce. Telephone with Jovellanos. Road leaves plantation, passing on west side of mill, through wire fence with wooden gate.

56.5

Fenced sugar-cane land on northeast side and pasture land on southwest side of road.

57.0

Road runs north. A wood house on east side of road. Low, fenced pasture land on both sides of road.

59.0

Land becomes higher, with cane planted on both sides. Road not fenced and in bad condition.

59.5

Road crosses a little, muddy stream, branch of Río Cimarrones, about 2 feet wide and 6 inches deep. Stream runs south. An old boiler is used for a drain and covered with mashed rock.

60.2

Hilly pasture land on both sides. Ingenio of Olimpo. Leave Olimpo on a bull-cart road running northwest.

60.5

Cross United Railroad of Habana track and follow along south side of the track.

62.5

Station of Tosca. (The asiento of the ancient corral of Sabanilla de Vivos y Muertos.) From here a branch railroad runs north to finca San Juan. Leave Tosca and go through fields in a northwest direction; country low.

63.0

Central Carolina. Leave Carolina through an open country planted with sugar cane; general direction north.

64.0

Miles from
La Yaya.

- 67.0** Road runs parallel with the Coliseo-ingenio Triunfo Railroad. The country is planted in cane and cut up by stone walls.
- 69.5** Pass through ruined stone fence and enter ruined ingenio of Ponce. (Merced de Ponce.) Here there is a well. The road becomes rocky. Pass along the side of a hill. Road turns nearly west. On the north side of road is a sunken road which serves as the bed of a stream (Río del Hatico) during the rainy season. Cross a stream and ascend a hill to ruins of old ingenio and oil wells known as Economía.
- 72.0** From this hill there is an excellent view of the country to the south. One thousand yards southwest there is a range of hills running east and west, known as Las Tetas de Camarioca. The hill of Economía is open. Road runs north and enters high and rocky country covered with heavy brush. The road is very rocky.
- 74.2** On the west is the old hacienda Pendejeros and on the east La Loma de Martel and La Loma de Farruco. The brush here is 7 feet high and difficult to penetrate. Pass over a dirt road; rocky at places; stone fences on both sides of road.
- 75.5** Ingenio Precioso.

ROAD No. 5.

INGENIO DULCE NOMBRE—MACAGUA—PALMILLAS—COLÓN—ALTAMISAL—RECREO (MÁXIMO GÓMEZ).

General direction: NW. Distance: 45.7 miles.

IN GENERAL.

1. Ingenio Dulce Nombre to Macagua.—A fairly good dirt road about 15 feet wide and practicable for wheel transportation in dry season. Road not ditched and in rainy season covered with water.

2. Macagua to Palmillas.—A fairly good dirt road, in dry season practicable for wheel transportation. Road about 12 feet wide and not ditched. In rainy season impracticable for wheel transportation.

3. Palmillas to Colón.—A fairly good dirt road about 12 feet wide, not ditched. Practicable for wheel transportation in dry season only.

4. Colón to Altamisal.—A very rough dirt road about 18 feet wide. No ditch on either side. Road suitable for bull carts or light-loaded wagons during dry season only.

5. Altamisal to Recreo.—This is just a trail following railroad line and part of the time on the grade. Impracticable for any kind of transportation.

IN DETAIL.

Leave ingenio Dulce Nombre and take road running southwest.	Miles from ingenio Dulce Nombre.
A road runs east and one west. Level pasture land.	0.5
Wire fences along road.	
Village of Macagua Vieja.	2.7
Wire fences along road. Pass cemetery surrounded by stone wall.	3.0
Road crosses railroad. Level pasture land on all sides.	4.7
Enter Macagua. A spur of railroad runs from this place to Dulce Nombre. Road leaves Macagua from southwest part of town. Level pasture land both sides. Wire fence on east side.	5.0
Ingenio of Occitania. Road leaves ingenio, running southwest. Cane south and level pasture north.	6.0
Ingenio of Aguedita. Road leaves ingenio, running southwest. About 300 yards from mill road turns due south, passing small cluster of houses on east side. Cane both sides. No fences.	9.5
Road turns southwest. Level pasture east and cane west. No fence.	11.0
Road passes through village of Jacan. Leaves village, running due south. Level pasture both sides. Hedge fence west and wire east.	12.5
Small house each side of road. Cane both sides.	14.0
Small banana grove east and palm trees both sides.	
Level pasture land with small timber both sides.	14.5
Wire fence both sides.	
Road passes over old wooden bridge, 30 feet long, 12 feet wide, and 6 feet high, crossing small stream, Río Palmillas, running west. Stream about 2 feet deep. Wooded land both sides of bridge. Bridge very old and in bad condition. Branch road runs southwest to Cumanayagua.	15.0
Palmillas. Leave Palmillas on road running northwest. Cross a branch of Río Palmillas on a small wooden bridge. Country low and swampy.	15.5
A trail runs west.	17.0
Jacan. Leave Jacan on road running north. Level pasture land on all sides; road has wire fence.	17.5

Miles from ingenio Dulce
Nombre.

- Cross dry bed of a branch of Río Palmillas, Arroyo Conclusión. Here the road turns northwest. Pasture land on all sides.
- 18.5
- 19.5 Take a road north, through pasture land.
- 20.2 Agüica. (From Agüica to Colón, *see* Macagua-Colon-Retimal-Perico-Quintana-Jovellanos-Isabel-Corral Falso-Navajas-Güira-Bolondrón-Limonar-Matanzas-Aguacate road, from the 6-mile point to the 14-mile point.)
- 28.2 Colón. Leave Colón, going northwest.
- 29.4 Cane. Wire fence on sides of road.
- 30.2 Retimal. Follow road northwest.
- 31.2 Country very hilly. To the east Loma de la Bermeja. A small road branches to south through cane fields.
- 32.7 Small woods to northwest.
- 34.7 Ingenio Tinguaro.
- 37.7 Pass through cane fields and follow railroad track north.
- 38.2 Altamisal. Trail leaving Altamisal following railroad line running northwest. Level pasture and wire fence both sides. Three-wire telegraph line east and one-wire telephone line west.
- 39.9 Short spur, standard gauge, runs west 800 yards. Cane crane at end. Spur connected with main line with a Y. End of telephone line. Level pasture and wire fences both sides.
- 40.4 Wire fence and cane west. Level pasture, no fence on east.
- 40.9 Cane both sides. No fences.
- 41.4 Station Villaba; siding 800 yards long. Standard gauge spur about 2.2 miles long runs northeast to ingenio Angelita. Small stone station and one small store. Cane both sides; no fences.
- 42.4 Low, level pasture land both sides. Railroad crosses low spot on short trestle. Small pond of water.
- 42.9 Standard gauge spur branches west to ingenio Algorta, about 0.7 mile long. Wire fences both sides. Cane west and level pasture east.
- 44.4 Level pasture both sides. Wire fence west.
- 45.7 Cane both sides. Recreo (Máximo Gómez).

ROAD No. 6.

MOTEMBO—INGENIO SANTA GERTRUDIS—INGENIO ÁLAVA—COLÓN—
GUAREIRAS—CALIMETE—LA YAYA.

General direction: S. Distance: 49.2 miles.

IN GENERAL.

1. Motembo to Santa Gertrudis.—A very rough road, passing through low, swampy country. This road is not suitable for wheel transportation, and in places it is nothing more than a trail.

2. Santa Gertrudis to Colón.—The last mile of this road is new telford wagon road, ditched. This new road will be extended to Banagüises. Until the last mile is reached, the road is about 50 feet wide, not ditched or graded, and runs over heavy black soil which has great ruts made by carts in rainy season. During dry season a loaded wagon can pass, but during the rains road becomes a marsh.

3. Colón to Guareiras.—A fairly good dirt road in dry season about 15 feet wide. This road is being turned into a macadam road. Road practicable for wheel transportation in dry season only.

4. Guareiras to Calimete.—A fairly good dirt road about 15 feet wide, not ditched, practicable for wheel transportation in dry season. Impracticable for wheel transportation in rainy season.

5. Calimete to La Yaya.—A rough road which, in places, becomes only a trail. Impracticable for wheel transportation.

IN DETAIL.

Trail leaves Motembo running southwest; lowland with underbrush on all sides. Miles from
Motembo.

Trail crosses a branch of the Río de la Palma, about 20 feet wide and 2.5 feet deep. Approaches steep and boggy. 2.5

Low, unfenced pasture land on all sides. 3.0

Colonia Por Fuerza. At this point the trail becomes wider and could be used by bull carts only. 4.0

Pasture land, thinly covered with palm trees and underbrush. 4.5

Small pond on each side of road; very little grazing. 5.0

Colonia San Andrés, small wooden house and ruins of old ingenio. Telephone line from colonia to ingenio Santa Gertrudis. Wire fences on both sides of road. 5.7

Colonia No. 6. At this point the road joins narrow-gauge railroad running from Santa Gertrudis. The road 6.2

Miles from
Motembo.

- turns south and follows railroad track on east side. Cane fields on all sides.
- 7.0 Colonia No. 5 on east side of road.
- 7.7 A road branches east, going to colonia No. 3.
- 8.2 Railroad and road turns west. No fence along road. Pasture land on south side.
- 9.0 Cane fields on all sides.
- 9.5 Ingenio Santa Gertrudis. (San Fernández.) Leave ingenio Santa Gertrudis, following a wagon road along west side of plantation standard-gauge railroad track, running from the batey south to Banagüises. Cane on all sides.
- 12.0 Banagüises. Cross railroad track and go southeast following track, passing on the south, near the track, a dam which is the water supply of ingenio Álava.
- 12.5 Dam is built on a creek which the railroad crosses on a bridge.
- 13.0 Ingenio Álava, which is entered by a road from the north into batey. Leave batey south.
- 14.0 Cross a road which runs in a general north and south direction, connecting Banagüises and Agüica.
- 15.0 Cross a standard-gauge branch road, general direction north and south. This branch ends 200 yards southeast of this point. This branch is known as the Conchita switch, and is the property of ingenio Álava.
- 15.5 Country a large, open plain, with scattered palm trees; soil black and heavy; cane growing in places.
- 17.5 Crosses a road running east and west. Passing through Río Piedra and Entronque. The road traveled runs southwest.
- 19.5 Beginning of a new telford road. Wire fences on both sides of road. Sugar cane in fields.
- 20.0 A dirt road runs east to a cattle ranch. Heavy woods to the west and open country to the east. Grade descends. A crossroad runs east and west, fenced with wire. Pass fincas Santa Rosa to east and Santa Luisa to west. Pass a large stone Spanish blockhouse on west of road and commanding same. It is built like a tower, 20 feet high, 2 feet thick, and has three tiers of loopholes. It is 12 feet in diameter. Condition good.
- 20.5 Begin a rapid descent and enter Colón. Road leaves Colón from south end of main street and crosses small stone bridge 25 feet long, 15 feet wide, and 3 feet high over Río Cochinos. Wire fence and trees both sides of road. Level pasture land both sides. Branch road runs east to ingenio Mercedes.

End of construction work on new road at present time (February 19, 1907). Bridge, iron span, 50 feet long, on cement piers, 10 feet high, crossing dry bed of stream running east and west. Miles from Motembo. 21.2

Road turns west about 300 yards and then southwest again. Bordered both sides with trees; pasture land both sides. 22.0

Road very rocky for about 600 yards. Passes Laguna de las Piedras to west. Wire fence, and hilly, rocky pasture land both sides. Road turns due south. Branch road runs east to ingenio Mercedes. Cane south; level pasture land north. Cane all sides. Wire fences both sides. 23.0

Road turns west. Cane all sides. Branch road runs east to ingenio Mercedes. 25.0

Road strikes railroad and turns south. Cane and wire fence both sides. 25.5

Guareiras (Sabanilla de Guareiras). Leave Guareiras on road running southwest. Cross railroad 100 yards south of station and follow branch of railroad which runs to Manguito. 25.7

Road crosses stone bridge 50 feet long and 15 feet wide, built on five stone piers over Río Palmillas. Bridge 6 feet high. Level pasture land on all sides. Wire fence to the west. 25.9

Road crosses a bridge 50 feet long, 12 feet wide, and 16 feet high. Iron spans on 3 stone piers. The railroad crosses 100 feet to east on a bridge 100 feet long, 16 feet high, built on 11 stone piers. Bridges cross dry bed of a stream. 26.4

Pass two small houses on west side. Cane on all sides; no fences. 26.7

Road crosses railroad to east side. Level country, planted with cane, on both sides. 27.7

Plantation of La Vega de Tirso Mesa. 28.7

Cane fields all sides. Wire fence east side. 32.2

Town of Manguito. Passing through town, taking road running southeast, crossing railroad at outskirts of town. Cane fields both sides. 32.7

Cluster of trees both sides of road. 33.2

Cane fields all around. 33.4

Ingenio Araujo. (Formerly Niña.) Leaving ingenio, road bears south; cane fields all around. 33.7

Ingenio Esperanza. Leaving ingenio on road following plantation railroad. 34.4

Miles from
Motembo.

- Railroad and road turn due east. Cane fields all around. Wire fences both sides.
- 34.7 Road and railroad join main line at station called Cuatro Caminos. Wagon road turns south and follows main line. Standard-gauge railroad branches to east, running 0.7 mile to colonia María.
- 35.9 Palm trees and underbrush both sides of road.
- 36.2 Level pasture land west side of road. Wire fence east side. Standard-gauge railroad branches off from main line to colonia Indarra.
- 37.2 Town of Calimete. Leave Calimete from northeast part of town, crossing a railroad spur running northeast. Cane on all sides. Hedge fence on east for 300 yards, and then wire fences on both sides of road. Country level, with palm trees.
- 38.7 A road branches southeast to Indios. Cane on all sides. Wire fence east and hedge west.
- 39.0 Road turns east. Pasture land to east. A road branches northeast through cane fields.
- 39.7 Ingenio Por Fuerza.
- 41.7 Cane on all sides.
- 42.7 Rolling pasture land. Turn southeast.
- 44.2 Land low; no cultivation; no fences.
- 45.7 Land swampy.
- 47.7 Road crosses Río de la Luz. Water 1.5 feet deep and 7 feet wide. Approaches boggy.
- 47.9 High wooded land.
- 48.2 Standard-gauge spur of railroad running to colonia La Yaya. Follow spur.
- 48.4 End of spur. Colonia La Yaya.

ROAD No. 7.

CANASÍ—CORRAL NUEVO—MATANZAS—LA CIDRA—SABANILLA DEL ENCOMENDADOR—ALACRANES—UNIÓN DE REYES—BOLONDRÓN.

General direction: SE. Distance: 46 miles.

IN GENERAL.

1. Canasí to Matanzas.—An ordinary unimproved dirt road from Canasí to a point 2.5 miles from Corral Nuevo. From that point through Corral Nuevo to Matanzas is an excellent macadam road. The dirt road is practicable for light loads and country two-wheeled carts during dry season.

2. Matanzas to La Cidra.—An excellent macadam road from Matanzas to within 0.5 mile of La Cidra—20 feet between ditches, gentle grades, excellently drained. Practicable for all classes of transportation at any time of the year.

3. La Cidra to Alacranes.—A fairly good dirt road in dry season, though very rough in places. Practicable for light-loaded wagons or country carts. Heavy wagons, and in wet season, all wheeled transportation should turn west at Concepción for 0.2 mile and take road there to south to cross Canimar River by wooden bridge.

4. Alacranes to Bolondrón.—A fairly good undrained dirt road across practically level country all the way. Practicable for all branches and any kind of transportation during dry season, but impracticable for anything except pack animals during wet season.

IN DETAIL.

Leave Canasí, located on west bank of river of same name. Cross the river on a poor bridge of palm logs. The river can be forded just above the bridge. It is 30 feet wide, and has during the dry season 18 inches of water, hard sand bottom. Road passes through a sugar-cane country.

Miles from
Canasí.

Pass tienda Cuatro Pasos, located near ruins of old ingenio of same name. Here a road runs from ingenio Elena, 2 miles south, to ingenio San Juan Bautista, 1.5 miles north.

Pass over a steep hill. Pass a hill to the west and cross Río Escondido, 20 feet wide and 10 inches deep. The road then passes up and down steep grades and descends a steep hill and crosses a small creek. The direction is east.

Tienda Santa Cruz, the site of ruined ingenio of same name.

Road runs east through a washed-out cut. Country rolling and barren.

Wind around base of a hill. Here the macadam road to Matanzas begins.

Go down grade, cross Arroyo Blanco on wooden bridge and, still going east, enter Corral Nuevo. Pass through town and cross Arroyo Blanco again on wooden bridge.

Good camp site for regiment.

Irrigation pipe crosses under road.

Go down steep grade to the Yumurí valley. At this point there is a ridge with line of vertical cliffs near top extending east and west from 2 miles south of Matanzas

Miles from
Canasí.

- to a point south of Canasí. Cross Yumurí River on steel-truss bridge. Road then runs northeast around base of a bare hill and reaches a bodega. From this point a road runs to northwest to a group of copper mines.
- 11.5** Cross Yumurí River again, on steel-truss bridge.
- 12.0** Road runs northeast through a stone cut in a low ridge. A road branches here and crosses the Yumurí River on steel-truss bridge and runs north across valley. Pass irrigating pumping station and go east and pass a section house.
- 13.0** Begin ascent out of the Yumurí valley. Grades easy.
- 13.5** Pass through a 20-foot cut through a rocky ridge, over a fill across a ravine, and descend to Constitución street in Matanzas. Leaves Cuartel Santa Cristina, crosses the Yumurí River by Concordia Bridge and the San Juan by Calixto García Bridge; continues on calle Tirry.
- Station of U. H. R. R. Road turns west.
- 17.0** Near schoolhouse. After continuing about 100 yards
- 17.5** turns southeast (a road from this point continues west parallel to the railroad to Ceiba Mocha), and at 100 and 150 yards from corner crosses Matanzas Railroad track again and then U. H. R. R. main line. Begins to ascend hills Loma de Velis Melis inclosing Matanzas to the south, first by long, straight slope, and then by three zigzags to summit. This point completely commands entire city. About 100 yards west of road is a deep well with drum windlass; excellent water. From summit of hill it continues slightly east of south through gently rolling country, partly cane and partly pasture land, to Encrucijada de San Pedro, a small roadside bodega. (The macadam Encrucijada-Guanábana road goes nearly east from this point.)
- 20.0** Passes finca with windmill and 2,000-gallon tank. Country more rolling and less cultivated.
- 20.5** Low ridge, wooded hills to east. Pass over Loma Los Congos. Descends by gentle slope to narrow valley and turns nearly west to cross Arroyo La Vieja (branch of San Juan River). Ascends gentle grade and turns south to bodega and small sugar warehouse for temporary housing of sugar from ingenio Porvenir, which is 2 miles west.
- 24.0** Turns to southeast between bare hills, and then south.
- 24.5** New macadam road being built from this point to Porvenir and Santa Ana, which latter is small barrio 3 miles west. Runs nearly south and circles base of bare hill, Loma San Pedro (40 feet), where it runs to east and
- 26.0**

macadamized surface ends. From here to Cidra, road is very rough and badly gullied street. Leave La Cidra by road to Matanzas to top of hill, where macadamized road begins. Turns south, gradually descending through cane fields.

Miles from
Canasí.

26.5

27.0

Cross small muddy stream. No running water in dry season; probably 2 feet or more in wet season, but fordable for all arms. Ascends long, gentle slope to finca Concepción, which is site of a ruined ingenio. (Here road crosses, coming from central Luisa and continues west.) Take this road for bridge. Runs down gentle grade to valley.

27.5

Crosses Canímar River, here but small stream 10 feet wide and almost dry in winter, but probably too deep to ford in wet season. Rather steep slope on south side, but short. Runs across flat and enters La Sabanilla del Encomendador from north on calle Maceo, which runs straight through the town. Runs across flat, open country, mostly in sugar cane, and then begins to ascend to rolling country.

28.5

29.5

Here roads branch to east to Unión de Reyes and west to Bermeja. Road becoming rough. Winds somewhat and ascends and descends through hilly country, all in cane, until it reaches summit of this ridge, which extends east and west. North slope of this final hill is very steep and rough, but passable for all branches. This ridge commands all country to south coast (10 miles). Descends by practicable slope to flat red clay cane country and runs due south to Carmen de Crespo, which is a ruined ingenio with several good buildings intact, and a cane station on the Cabezas branch of the U. H. R. R. Turns to west after passing railway and passes around north side of ingenio, near which it turns to south and runs due south through perfectly flat country to crossing of main line, Unión to Habana, and straight on to ingenio Valiente. Right at ingenio road has been fenced off and it is necessary to go to east about 150 yards; thence north across ingenio railway; thence east to mill. Runs south from vicinity of mill building and then southwest to junction with dirt road from north and enters town of Alacranes on calle Libertad. (Town also called "Alfonso XII.") Leave Alacranes by calle Libertad south to railway track, where road turns east and follows track.

30.5

31.5

32.5

34.0

35.5

35.7

36.0

36.5

- Miles from Canasi.
- 37.2** Crosses good bridge over Río San Andrés, which is dry in winter, but which overflows its banks and floods the town and surrounding country during rainy seasons.
- 38.0** Turns north, still following railway tracks, and near this point crosses spur track branching here to ingenio Conchita. At right of road where east and west road branches is a monument. Runs from here nearly due north.
- 40.0** Unión de Reyes. Leaves Unión de Reyes on calle Virtudes or other parallel street and follows railroad track to the south of same.
- 41.0** Crosses spur to ingenio Conchita, 5 miles south, and then crosses main line track to north side.
- 42.0** Passes switch and cane station, and just east of same crosses back to south side of main track.
- 43.0** Crosses main track to north side.
- 43.5** Passes small station, switch, and private spur running from finca San José to railway and then southeast to ingenio Feliz. Just east of 40-mile point road again crosses main line to south side.
- 44.0** Crosses Río Cojatal, which is probably a torrent in rainy season. This creek bed and road on both sides for short distance are very rough and almost impassable for wheeled vehicles. A plantation road leading south 0.5 mile from near 40-mile point leads to smooth ford, and should be taken by wagons.
- 45.0** Runs south of track through level cane country. Ingenio Jicarita 0.5 mile north.
- 46.0** Reaches Bolondrón.

ROAD No. 8.

PEDROSO—INGENIO SOCORRO—INGENIO CARMEN—NAVAJAS—CORRAL FALSO (PEDRO BETANCOURT)—LA MULATA—JOVELLANOS (BEMBA)—INGENIO SAN VICENTE—SAN ANTÓN DE LA ANEGADA.

General direction: NE. Distance: 38.7 miles.

IN GENERAL.

1. Pedroso to Navajas.—A good dirt road over a flat, low country, planted in sugar cane. Road not drained and can not be used by wagons during rainy seasons. These two places are connected by a trail along the railroad, but wagons should follow the road described.

2. Navajas to Corral Falso.—A new macadam road.

3. Corral Falso to Jovellanos.—A very fair dirt road in the dry season, except for wheeled transportation; large impassable portion in the rainy season.

4. Jovellanos to ingenio San Vicente.—In dry season a fairly good dirt road for all arms and any kind of transportation. Road about 20 feet wide, no ditches, passing through level country with cultivated sugar-cane fields on both sides of the road. In rainy season impracticable for transportation, as country is flooded with water.

5. San Vicente to San Antón.—A fairly good dirt road in dry season halfway to San Antón, from which point to San Antón is nothing but a bridle path through level pasture land, which in rainy season is covered with water. Road not ditched, and practicable for wheel transportation in dry season only.

IN DETAIL.

Leave Pedroso railroad station, following a cart road running northwest along a branch railroad of the ingenio Socorro. Miles from
Pedroso.

Ingenio Socorro. This sugar mill is situated in low country and liable to overflow during the rains. Leave sugar mill and follow road north. 2.0

Cross a wooden bridge over small drain. 2.2

Pass a group of shacks; well water here. 2.4

Pass a dirt road running east and west. 3.0

Enter a dirt road 30 feet wide and follow this road due north. Wire fences along the road. 4.0

Pass small pond of water; country devoted to raising cattle. 5.0

Ingenio Carmen. 5.5

Pass finca Santa Amelia. 6.5

Road now runs parallel to railroad, which is about 100 yards to the east. Cactus hedges on both sides of road. 7.0

Navajas. Leave Navajas on a new macadam road running east. 7.2

Corral Falso (Pedro Betancourt). Leave Corral Falso at the east end of the town, crossing railroad, and go east toward isolated ceiba; road running parallel with and south of railroad. Cane land to right and left. 9.7

Crosses railroad just beyond 64-kilometer post, curving to north. 10.7

Turns east; base of road black soil of such a rutty and spongy type as to be next to impassable for any wheeled transportation in any season. Uncultivated land to right and left. 11.0

Arroyo Nuevo, always muddy, crosses road. 11.5

Miles from
Pedroso.

- Passes lake to left, leaving thick underbrush on each side for 0.7 mile.
- 11.8
- 12.4 Soil becomes firm.
- 13.0 Cane land to left.
- 13.3 Passes old plantation, Mercedes.
- 13.4 and Passes two large lakes to the south (Laguna Mercedes).
- 13.7 (Road continues here through Condesa.) Ingenio Elizalde to southeast. Take crossroad running north toward Ranchuelo.
- 14.7 Take cane road to right through gate, bearing 80°.
- 16.0 La Mulata, colonia. Leave Mulata, going north through cane land.
- 18.3 Road enters camino Real by ceiba tree, which take to right (east).
- 18.5 Turn north.
- 19.5 Crosses Jovellanos-Montalvo branch U. H. R. R. and
- 19.9 curves eastward.
- Crosses Jovellanos-Habana branch U. H. R. R.
- 20.7 Enters Jovellanos at east end of calle José Martí, passing cemetery to right. Leaves Jovellanos from southeast corner of town, going northeast.
- 24.7 Ingenio of Soledad. Road turns due north, bordered on both sides with row of palms.
- 26.7 Road strikes branch of railroad, standard gauge, running to ingenio of San Vicente, follows railroad track to ingenio; road at this point badly cut with ruts.
- 28.7 Ingenio of San Vicente. Road leaves ingenio from east side, running northeast. Level, open pasture both sides. No fences.
- 29.9 Small colonia. Cane west. Pasture east. Leaves colonia, running north through open pasture. No fences. Branch road well traveled, runs northeast; fenced with wire both sides.
- 30.2 Strikes old Spanish highway that ran east and west; road follows this road about 200 yards. At this point four roads—one west, one south, one northeast, and one southwest. Take road running northeast. Wire fence and cane both sides.
- 31.7 Four roads—north, east, south, and west. Take road north; wire fence and level pasture both sides.
- 32.4 Two roads branch—one east and one west. Level pasture and wire fence both sides.
- 33.7 Passes old ruins to west, ingenio Admiración. Level, open pasture both sides. Wire fence west, none east. Road running north. Ciénaga de Guanajayabo to east.

Passes through wire gate. Open pasture land, with large bamboo groves on both sides of road.
 Miles from
Pedroso.

34.7

San Antón de la Anegada. From 34.7-mile point this road is nothing but a bridle path through low, level pasture land; could be used for wheel transportation in dry season. In rainy season is covered with water. There is nothing at San Antón but small stone station, stone warehouse, and one small stone dwelling house. Water tank, and siding about 400 yards long, and old ramp for unloading cattle. Here are the ruins of ingenio Pelayo, and just east of these ruins runs north the Pelayo Canal, built to drain the swamp passed at 33.7-mile point.
 38.7

ROAD No. 9.

VEGA DE TIRSO MESA—MEDEROS—QUEMADO—CALIMETE.

General direction: S. Distance: 30.5 miles.

IN GENERAL.

A fairly good dirt road, practicable for wagons in the dry season.

IN DETAIL.

From Vega (2.5 miles south of Guareiras) take road running southwest, following standard-gauge spur; cane fields both sides; no fences. Telephone line following road (three wires).
 Miles from Vega.

Road turns west, following spur. Road bordered both sides with trees. Cane both sides.
 0.5

Spur from Vega joins spur running to Caney. Road crosses both spurs and runs west. Cane both sides. Small white house south side of road.
 1.0

Road passes 0.5 mile south of colonia Venerito. Road branches to colonia. Country level; cane fields. No fences.
 1.5

Road crosses, running northeast and southwest from Caney to Manguito. Cane both sides of road.
 1.7

Road fenced both sides with wire. Cane to north, and rough, rocky pasture land south.
 2.5

Road passes through dry bed of lake, which in rainy season reaches depth of from 6 to 30 feet. Passes small store on south side. Cane both sides and wire fences both sides. Branch road runs north to Caney and south to Manguito.
 3.0

Miles from Vega.

- Crossroad running north and south through cane fields.
- 3.5** Large pond of water on south side of road 300 yards long by 50 feet wide. Road strikes spur from Caney to Dos Hermanas. Pasture land and wire fences both sides. Road follows railroad.
- 4.5** Colonia of Dos Hermanas. Ruins of old sugar mill. Crane for loading cane. End of standard-gauge spur from Caney. From this point take road running southwest to Jagüey Grande.
- 4.7** Branch road runs east to Prendes. Pasture land both sides. Wire fence west. Road running southwest.
- 5.5** Road turns south; very rocky. Cane both sides. No fences.
- 5.7** Road passes through grove of trees; very rocky.
- 6.0** Heavy underbrush and small timber both sides of road. Country very rough and rocky.
- 9.0** At this point road turns south. Cane and wire fences both sides of road. Small house on west side. From this point back to 4.7-mile point road runs through heavy underbrush, and no roads branch in either direction. Road very rocky and impracticable for wheel transportation.
- 10.0** Passes small house on west. Large grove of banana trees both sides; no fences. Country very rough and rocky.
- 14.0** Road crosses, running east and west. From this point back to 10-mile point road nothing but a bridle path running through a rough, rocky country. No cultivation. Heavy underbrush and timber both sides of road. Fenced on east with stone and on west side part stone and part wire. No roads or trails branch in either direction between 10 and 14 mile points. About 100 yards from crossroad is small house on west side.
- 15.0** Passes small houses both sides of road. Large banana grove to west. Stone fences both sides.
- 16.0** Crossroads, running east and west. Banana grove east, and rough, rocky pasture west. Stone fences both sides.
- 17.0** Fork of roads. Take road running northeast. Road runs southeast to Amarillas. Rough pasture land both sides. From this point back to 4.5-mile point road impracticable for any wheel transportation.
- 18.0** Passes small house on north side and large banana grove on south. Wire fence south and stone north. Heavy underbrush north.

Cane fields both sides. From this point back to the 18-mile point road runs through rough, rocky uncultivated country, covered with small timber and heavy underbrush. Fenced on both sides with stone. Practicable for wheel transportation. Miles from Vega.
20.5

Passes small store to north. Cane fields both sides. 22.0
No fences. Crossroads. Take road running east. Level pasture land both sides. Wire fence south.

Branch road runs north to colonia Barró. Cane south and pasture and banana trees to north. Stone fences both sides of road. 23.0

Road branches northeast. Stone fences both sides. 24.0
Rough, open ground to south and timber and underbrush to north.

Road passes over small range of hills about 30 feet high, running north and south. Level pasture to south and heavy underbrush to north. Stone fences both sides. Road running northeast. 24.5

Cane fields both sides. Stone fence north. None south. Ingenios Araujo (Niña) and Esperanza on north side of road. Small white house on south side. 25.0

Crossroads. Take road running due south. Cane both sides; wire fence east. 25.5

Branch road runs southwest. Cane and pasture west. No fences. 27.5

Road turns east. Cane both sides; wire fences both sides. Branch road runs south. 28.0

Branch road runs south. Wire fences both sides; cane in all directions. 29.0

Heavy underbrush and small timber to east and cane to west. Wire fences both sides. 29.5

Road fenced, both sides, with wire. Cane both sides. 30.0
Calimete. 30.5

ROAD No. 10.

CANASÍ—CEIBA MOCHA—CABEZAS.

General direction: SE. Distance: 23 miles.

IN GENERAL.

1. Canasí to Ceiba Mocha—Unusually good, unimproved dirt road most of the way. Rough in places, particularly 0.5 mile south of Cuatro Pasos, where road climbs steep and extremely rocky hill. Wagons would do well to make short detour to either east or west to

avoid this place. Practicable for all arms and wheeled transportation in dry season. Probably very heavy, if not impassable for wheels in cane lands near Elena, and again near Ceiba Mocha during the rainy season.

2. Ceiba Mocha to Cabezas—From Ceiba Mocha to 13-mile point and from 15-mile point to Cabezas, unusually good, unimproved dirt road. Suitable for all arms and for wheeled transportation. From 13-mile point to 15-mile point, fair dirt road, rough in places. Practicable for light loads and country carts.

IN DETAIL.

Miles from
Canasí.

- Leave Canasí and proceed by Matanzas-Canasí road to
- 2.0 Cuatro Pasos. Runs south. (Roads branch to north to ingenio San Juan Bautista, and to east to Matanzas.) Road good, nearly level. Country mostly in cane.
 - 2.5 Ascends steep and very rocky hill to summit of ridge forming southern boundary of Cuatro Pasos valley. At top of hill runs southeast through rocky and uncultivated but open country. Runs up and down small hills and varies slightly in direction.
 - 3.0 Trail branches here to east.
 - 3.5 Runs southwest, country and road the same.
 - 4.0 Trail branches to west toward Canasí.
 - 4.5 Runs southeast again, some cane west of road.
 - 5.5 Descends and crosses small branch. (Río Santa Cruz.)
 - 5.7 Runs southwest.
 - 6.0 Joins road running nearly east and west from Vista Hermosa. Combines with road and runs south 300 yards to Armona, the ruins of an ingenio of that name.
 - 7.5 Ingenio Elena. Runs southeast directly toward the mountain of El Pan de Matanzas. Country flat near mill and getting somewhat rolling as the mountain is approached. Road unimproved but excellent.
 - 9.0 Crosses El Pan River (a mile or two lower down called San Agustín) by a three-arched stone bridge, in bad repair. This bridge is just under the southwestern slope of the mountain El Pan (600 feet) nearly exactly between it and El Palenque, a precipitous limestone cliff forming the western extremity of a long east and west precipitous ridge.
 - 9.5 Runs to southwest and then south, ascending by easy grades to the summit of a low, hogback ridge connecting the two mountains. This point is directly under the cliff El Palenque. Runs south down slight slope 300 yards

Miles from
Canasi.

and then turns east. A road here branches to southeast, where at 1 mile it joins the Matanzas-Ceiba Mocha road (hill road). Runs west to 250 yards; turns to southwest through break in stone fence.

Crosses slight hill and enters narrow lane bounded by stone fences (12 feet wide) running due south. Continues in lane 400 yards, jogs west 50 yards, and again runs south through flat country in pasture and cane. 10.0

Ceiba Mocha. Crosses railway track east of station and runs southeast. 11.5

A road here branches to east to Benavides. Runs through American colony. Country nearly level, oranges and pineapples on both sides. 12.0

Road branches to south to stock farm and Empalme. Runs east and then south, approaching rocky east and west ridge. 13.0

A road branches east to Acosta. Country gently rolling, open, and generally cultivated. 13.5

Old stone blockhouse, 20 by 20 feet, to right on knoll. Continues southeast, country gradually getting rougher, road somewhat stony. 14.5

Strike camino Real running from Empalme to San Francisco de Páula. Runs southwest, very rough country of low limestone cliffs covered with brush. 15.0

Very rough and washed out hill. 15.5

Runs generally south, but winds among limestone ledges, no cultivation; crosses low ridge, and descending, joins east and west road running through narrow valley from Madruga to points west. Runs east for 300 yards, passes through gate, runs south short distance, inclines to east around jutting shoulder of ridge and ascends by long, gentle slope to upland country. 16.0 16.5

Runs slightly east of south. Road good, country mostly in cane. 18.0

Road fenced here, necessitating detour of 200 yards to east to gate. 18.5

Joins excellent, much traveled road running nearly north and south by slight jog to east. 19.0

Passes ruined ingenio called Amorosa, several entirely ruinous and two habitable stone buildings on top of considerable hill. Descends by long and steep grade to dry bed of creek. (About 80 feet below general level.) Ascends by slightly less difficult grade, road on both slopes smooth and excellent, though undrained. This 19.5 20.0

Miles from
Canasi.

creek has rocky bed, is probably torrent in rainy season. At summit of ascent runs east for 300 yards then turns south along top of ridge; country open and rolling.

21.5 Road branches here, best traveled branch runs nearly west to La Bija. At small hut near junction leave road and take trail past house and through garden. At 400 yards from point of deviation this trail, which is level and practicable for wagons, joins east and west road. Descends by easy grade to bed of small stream running south in narrow cañon with nearly vertical limestone walls, 40 feet high.

22.0 Runs south along stream past a walled-up spring.

22.5 Runs out of mouth of cañon into main street of

23.0 Cabezas.

ROAD No. 11.

AGÜICA—SAN JOSÉ DE LOS RAMOS—INGENIO SANTA GERTRUDIS.

General direction: N. Distance: 16 miles.

IN GENERAL.

1. Agüica to San José de los Ramos.—A fairly good dirt road in dry season, not ditched and about 12 feet wide. Practicable for wheel transportation in dry season only.

2. San José de los Ramos to ingenio Santa Gertrudis.—Road suitable during dry season for wagons. During rainy season wheel transportation can pass, but with difficulty.

IN DETAIL.

Miles from
Agüica.

Leave Agüica, going north.

2.0 Wire fence on both sides of the road. Level pasture land.

4.0 Pass a spur running through cane fields to ingenio Álava. Cane on all sides.

7.0 Pass colonia Carmen.

8.0 Cross bridge over dry bed of stream; 12 feet long and made of railroad rails.

9.0 Enter San José de los Ramos. Leave town of San José on road running west, parallel to railroad track, south side. Cross wooden bridge over arroyo which is running through a bed 15 feet deep and 12 feet wide (Arroyo Naranjo). Cross railroad under bridge of masonry 12 feet high and take road running northwest. Cane fields all sides.

The road runs parallel to railroad track along the north side.	Miles from Agüica.
Cross Arroyo Concepción. Small stream; no bridge.	10.0
A large railroad switch, called Progreso switch, cane crane, and four small houses. Take road running north and cross Arroyo Jigüe, 4 feet wide, 2 feet deep, over an arch stone bridge. Cane in all directions; 100 yards to west the arroyo has a stone dam.	11.0
Here a dirt road runs northwest. Take this road. Cane all sides.	11.2
Enter open field. Small patches of cane only.	12.0
Pass two shacks, one on each side of road. Reach large cane field with wire fence north and south. Follow a road north parallel to fence.	13.0
Strike road running northwest and southeast. This road runs southeast to San José. Take road northwest. Wire fence both sides road.	13.2
A road east and west. Take road west.	14.0
Ingenio Santa Gertrudis (or San Fernández).	15.0
	16.0

ROAD No. 12.

CABEZAS—ECHEGARAY—MAGDALENA—INGENIO JESÚS MARÍA—MATANZAS.

General direction: NE. Distance: 16 miles.

IN GENERAL.

A good dirt road to Magdalena. Practicable for all wheeled transportation. From Magdalena to Matanzas, ordinary Cuban unimproved road. Very rough in places. Practicable for light loads and country carts.

IN DETAIL.

Leave Cabezas by only road to north. At base of limestone cliff runs to northeast and up gulch to east of one by which Mocha-Cabezas road enters town.	Miles from Cabezas.
Reaches level of plateau (roads branch here to east to finca Quintanales and to north to finca Valdevieso); runs somewhat west of north. Country open and rolling, mostly in cane.	0.5
Runs nearly north. (A road branches here to northwest to Amorosa and Bija.) This point is at the top of a hill which commands view of miles of flat country toward Unión and Alacranes.	1.0
	1.5

Miles from
Cabezas.

- Passes Echegaray, which is site of ruined ingenio; bodega and schoolhouse. Country still rolling, grades not severe.
- 2.0
- 2.5 Road branches here to northwest to Mogote and Benavides.
- 4.0 Runs along ridge; turns to west for short distance, and then south to Magdalena, where there are two bodegas and a schoolhouse. Runs due east across flat which is probably very heavy in wet season.
- 5.5 Crosses dry bed of small stream and just beyond at bamboo grove of some acres extent turns north.
- 6.0 Crosses camino Real (Bija to Cidra); crosses field and
- 7.0 up long, steep hill to ruined ingenio San Ignacio. There is one good house here, one half ruinous barracon, and several wholly ruinous stone buildings. Descends rather steep hill, inclines to east around shoulder of considerable
- 8.0 hill, then crosses flat. Crosses bed of small stream. Inclines to east and ascends long, rather steep hill over notch in hill and descends to valley of small river, which
- 8.5 it crosses on poorly constructed long, brush bridge and ascends to ingenio Jesús María. Here are excellent buildings, but water is scarce in dry season and would not be good place for camp. Runs between mill and residence and crosses private railway, which runs northwest to San Francisco de Páula and Benavides.
- 9.5 Runs slightly west of south, crosses rather low but rocky ridge, runs nearly west for 300 yards, then north
- 10.5 and northeast; pass two gates at ingenio Jesús María and at second (near house) runs north 300 yards, then angles northeast across field and through gate to camino Real, which runs from San Francisco de Páula to Matanzas. Country from 9.5 to 10.5 rough and uncultivated, covered with small trees and brush.
- 11.0 Runs west and turns north, country gently rolling, some cane and fruit.
- 11.5 Passes small bodega. Ascends short, rocky hill and continues east.
- 12.0 Turns northeast directly toward Matanzas. (A road branches here to south; small bee farm with good house at turn.) From this point on there are few steep grades but road is badly cut and washed in places.
- 14.0 Descends by extremely steep grade to ford of San Juan River. Here, just before reaching ford, road branches to west to Ceiba Mocha (valley road).
- 16.0 Same road to Matanzas.

ROAD No. 13.

CÁRDENAS—LA MERCED—CONCEPCIÓN—PUNTA BRAVA—GÜIRA.

General direction: SW. Distance: 30 miles.

NOTE.—During 1908 a metaled road was constructed running south from Cárdenas to Lagunillas.

IN GENERAL.

A fairly good dirt road in dry season, which wet would retard march from 15 to 25 per cent; rough and stony in many places. Practicable for army transportation anywhere. Wheel transportation should leave road at La Unión and go through field to right to a point about 1 mile north of Concepción (Yinse) in order to avoid black land. After leaving Concepción turn out to left from main road to avoid hilly country, until road to Atrevido is reached, and rejoin camino Real 2 miles farther down, passing two prominent buttes to right.

IN DETAIL.

Road macadam for a mile out of Cárdenas, which leaves at south end by continuing along Fourth avenue (calle Tenez). At 4 miles from town road is very rocky for 0.7 of a mile with an uphill grade of 1/40; huge boulders would make it appear impassable, but escort wagons, full laden, can pass over it with safety; 2.5 miles south of Coliseo approaches to arroyo, very steep and rocky. Public road where it is resumed below Concepción to Punta Brava very little tracked, rutty, and quite grass grown. From Punta Brava to Güira quite rocky.

Miles from
Cárdenas.

30.0

ROAD No. 14.

INGENIO ANGELITA—GUAMUTAS—ALTAMISAL.

General direction: E. to Guamutas and SW. to Altamisal. Distance: 13 miles.

IN GENERAL.

From the ingenio to Guamutas nothing but a trail, impracticable for any transportation but pack trains. From Guamutas to Altamisal a fairly good dirt road about 15 feet wide, not ditched. Practicable for wheel transportation in dry season.

IN DETAIL.

Miles from
Angelita.

- Road leaves ingenio, running due east. Cane all sides. No fences.
- 0.5 Small house on each side of road. Country hilly and covered with small trees. Wire fence north.
- 1.0 No fences. Country rolling, covered with small timber. No cultivation. Heavy underbrush.
- 2.5 Road passes through wire gate. No change in country.
- 3.5 Country becomes level. Small timber. No underbrush. No cultivation.
- 4.7 Passes old cemetery surrounded by stone wall about 200 feet square and 6 feet high. Country level, with small timber.
- 5.0 Guamutas. Ruins of old stone building. Three roads; one south, one east, and one west. Take road west.
- 6.0 Level pasture and wire fence both sides. Small timber.
- 7.0 Heavy timber both sides. Wire fence north.
- 8.5 Heavy timber north and cane south. Wire fence south.
- 9.0 Passes small house on south. Cane south, open pasture land north. Wire fence south.
- 10.0 Passes several small buildings on south. Cane and wire fence south and open pasture north. About 0.1 mile a road turns west. Road to Altamisal turns south through wire gate. (Branch road runs west to railroad line.) Level pasture and wire fence both sides.
- 12.0 Road turns west and joins road from ingenio Angelita to Altamisal.
- 13.0 Altamisal.

ROAD No. 15.

ALTAMISAL—INGENIO SAN VICENTE.

General direction: NW. Distance: 13 miles.

IN GENERAL.

A fairly good dirt road about 12 feet wide, not ditched. Practicable for wheel transportation in dry season only. Parts of this road in rainy season totally under water.

IN DETAIL.

Leave Altamisal on road going west.	Miles from Altamisal.
Road passes over low, swampy country.	0.5
Cane on all sides. A road runs southwest to Perico.	1.5
Clump of woods 50 yards south of road.	2.0
A road branches north into cane fields.	3.0
Ingenio España. Road leaves España, following along south wall; at corner of wall turns south about 600 yards and then due west. Cane fields all sides. No fences. Branch road runs south through cane fields. Large pond of water 0.2 mile north. (This pond is formed by El Roque flood.)	4.0
Road turns northwest, becomes rocky; heavy underbrush both sides.	5.0
Passes through stone fence. Cane both sides, and about 200 yards turns more to northwest. Branch road runs west through cane fields.	6.0
Road turns due west. Stone fence and cane south and wire fence and cane north. About 300 yards west of turn, large grove of trees to north. Branch road runs directly east to España, but is partly covered with pond of water and impracticable for any transportation.	7.0
Road turns north for about 300 yards. Grove of trees both sides. Strikes small cluster of thatched houses. From this point branch road runs due west. Take road north. Banana and palm trees both sides.	7.2
Road turns due west. Cane all sides, with small palm and banana groves scattered along sides. Hedge fence south and wire north for about 0.5 mile, then no fence.	7.7
Road passes through wire gate, level pasture land both sides. No fences. Road running due west. Country rocky. Through this country the El Roque flood passes north.	9.0
Wire fence south, level pasture both sides. Country low and rocky.	11.0
Ingenio of San Vicente.	13.0

ROAD No. 16.**ALTAMISAL—ECHEVERÍA—COLÓN.**

General direction: SE. Distance: 11.5 miles.

IN GENERAL.

A fairly good dirt road in dry season; not ditched. Road about 12 feet wide, and practicable for wheel transportation in dry season only.

IN DETAIL.

Miles from
Altamisal.

Road leaves Altamisal from east end of village, running due east, following railroad running to Banagüises on south side of track. Short spur on north side of track with cane crane. Level pasture and wire fences both sides; 1,000 yards, road crosses railroad spur. Small switch house on north side of road. Telegraph line, 2-wire, on north side of railroad, and telephone, 1-wire, on south side. Telegraph line has wooden poles and telephone line iron.

- 1.0 Road passes large bamboo grove to south, level pasture north, wire fences both sides.
- 1.2 Road crosses railroad to north side; 5 small houses to north side of track. Spur, standard gauge, running about 400 yards, with cane crane. Cane both sides. End of telephone line.
- 1.5 Road passes small house on north side. No change in country.
- 2.5 Country rolling. Road passes through small cut about 200 feet long with banks about 3 feet high. Banks sloping. Cane north and level pasture south. Wire fence both sides.
- 3.5 Spur, standard gauge, 800 yards long, with cane crane. Pasture all sides. No fences.
- 4.0 Road crosses to south side of track. Level pasture both sides. No fences. About 300 yards, crosses dry bed of stream running north and south.
- 5.0 Level cane fields both sides. Wire fence both sides.
- 5.5 Crossroads. Road east to Banagüises. North to Hato Nuevo and south to Colón; 0.5 mile east of crossroads is station and colonia of Echevería. Take road south; wire fences and cane fields both sides.
- 6.7 Road passes end of spur from ingenio Álava. Large cane crane. Branch road runs west through cane fields. Wire fence and cane fields both sides.

Road passes small colonia on west side of road. Level cane fields and wire fence both sides of road. Miles from Altamisal. 7.5

Large palm grove to west, cane growing between trees. Level pasture on west 0.2 mile, then cane both sides. Wire fence both sides, bordered on west with small trees. 8.0

Road strikes main road between Colón and Banaguises. (From this point to Colón, *see* Motembo-Ingenio Santa Gertrudis-Ingenio Álava-Colón-Guareiras-Calimete-La Yara road from 17.5-mile point to 20.5-mile point.) 8.5

Colón. 11.5

ROAD No. 17.

JOVELLANOS (BEMBA)—CIMARRONES (CARLOS ROJAS)—LA LOMA DE CHIVOS—LAGUNILLAS.

General direction: NW. Distance: 11.1 miles.

IN GENERAL.

1. Jovellanos to Cimarrones.—A good dirt road, passable for any transportation in any weather; probable delay of 30 per cent in rainy season. Road at present runs through one difficult and perhaps impassable spot, but new road with bridge is being constructed to avoid this. This road is finished and the abutments of the bridge are now in place.

2. Cimarrones to Lagunillas.—A very poor, rocky trail, but one that has been apparently much traveled over. Impassable for automobiles, and difficult for any wheeled transportation; probably impassable in rainy season; largely black soil. Road is good for 3 miles, however, north of Cimarrones. This road, called La Loma de Chivos, is about a league longer than the one to the east, through San Joaquín.

IN DETAIL.

Road leaves town by railroad station and goes north along railroad through flat country, mostly cane land. Miles from Jovellanos.

Ascends slightly. (At this point a road goes westward to ingenio Olimpo.) 1.1

Bad land; river bottom; banks 150 yards apart, with 6° slope to bottom. New road and bridge being built at this point over Río Cimarrones. Old road runs between high (4.5 feet) earth embankments and becomes practically level. (At this point another road to Olimpo.) 2.3

Enters southern edge of Cimarrones, passing cemetery to left. Road leaves northern edge of town, passing through flat, pasture land. 3.7

4.0

Miles from
Jevellanos.

- . Crosses arroyo, flowing into Río Siguaguas, with black bottom, 100 feet wide, and with banks sloping 5°, passing over rather undulating ground, largely cane land.
- 53. Ends in crossroad, eastern end of which goes through San Joaquín de Mora and western end over the Loma de Chivos.
- 5.9 Passes bamboo grove to right, turns north at edge of same, following western edge of bamboo fringe for nearly 0.5 mile; stone wall to left.
- 6.8 Leaves hills 100 feet high 600 yards to westward; open ground to east of bamboo.
- 7.2 At end of bamboo, road begins to ascend 3° to 4°, and becomes rocky, leaving woody hills to left.
- 7.4 Turns to left (west).
- 7.8 Turns to right (north). Here road winds gradually over hills, leaving thick underbrush on either side.
- 8.1 Descends at grade of 2° for 0.1 mile, and 4° for one-fifteenth mile to arroyo; then ascends 4° for one-fifteenth mile and strikes level, uncultivated land.
- 8.4 Leaves bamboo right and cane left.
- 8.6 Meets crossroad. Take road to right, keeping to bamboo, and passing over plateau of grazing land; enters western edge of Lagunillas. Loma de Triana to north of town.
- 11.1

ROAD No. 18.

JAGÜEY GRANDE—SIRENA—CLAVELLINAS—YUCA—SAN JOAQUÍN—CRIMEA.

General direction: W. Distance: 12 miles.

IN GENERAL.

A poor dirt road about 30 feet wide, practicable in dry season for wagons. In rainy season horses and men can pass with difficulty.

IN DETAIL.

Miles from
Jagüey Grande.

- Leave Jagüey Grande by dirt road running southwest, crossing on southern outskirts of town main line of railroad. The country is planted in cane on all sides. Road is lined on both sides with cactus hedge; 100 yards dirt road runs west to La Yuca, and at 800 yards the road bears southeast. At 1,000 yards dirt road runs southeast to ingenio Australia, about 1 mile distant.
- 1.0 Enter open field, no cultivation on either side.
- 1.5 A dirt road running east and west from ingenio of Australia to La Perla. No cultivation; ground rocky and country open.

End of standard-gauge branch railroad known as La Perla branch, running northeast to ingenio Australia. Here there is a large cane crane, small wooden tienda and well. Take road running west. Cane and bananas growing on both sides of the road. Road has small stone fence on both sides.	Miles from Jagüey Grande. 2.0
A dirt road running north to La Perla; also a road northwest to a portion of the same plantation.	2.3
Dirt road north to Jagüey Grande and road south to a near-by ranch; sugar cane all sides.	3.0
Finca Sirena. Located on south of road, stone house suitable for 20 men, good well water; many cocoanut trees. A road runs south from this finca to the Ciénaga, 0.5 mile distant.	3.5
Road turns north; fenced with stone both sides and old road continues west to Yuca. To the north much cane; to the south no cultivation.	4.0
Take road running north and reach Los Pinos; stone house. Los Pinos is a finca composed of the western portion of Clavellinas. From this place take dirt road running west to San Joaquín; wire fence both sides of road. Cane on north side; south side open field.	5.0
Wood house on north; well; stone fence south side of the road.	6.0
Stone fences both sides of the road. A road runs south through a gate to Yuca, heavy undergrowth on south and cane on north side of road. Road now bears northwest. Stone fence on north side now ends.	7.5
On south of road country overgrown with bushes, on north side planted cane, several small houses north side, each of which has a well.	8.0
Road north. The road northwest just described continues to San Joaquín. Take road north.	8.5
Several small shacks on both sides of the road; both sides of road fenced with stone; cane in all directions.	9.0
Crossroad. Road just described continues north to Crimea and has a stone fence on east side; road east to Jagüey Grande, fenced with stone on both sides. A road east to Jagüey Grande and a road west. Road with stone fence on south side goes to Claudio (Torriente). Take road north.	10.0
Cane on all sides; pass several small houses.	10.5
Stone fence on east side ends; country on east open; on west planted with cane and bananas.	11.0
Crimea.	12.0

ROAD No. 19.**INGENIO SANTA GERTRUDIS—HATO NUEVO (MARTÍ).**

General direction: NW. Distance: 11.5 miles.

IN GENERAL.

A very good dirt road about 20 feet wide, not ditched. Suitable for light-loaded wagons or bull carts in dry season only.

IN DETAIL.

Miles from Santa
Gertrudis.

- Road leaves ingenio, running north along narrow-gauge railroad on east side. Telephone line, one wire, iron poles, follows railroad track. Cane fields on all sides; wire fences on both sides.
- 0.7** Narrow-gauge railroad branches off from main line and runs 0.5 mile west to cane crane.
 - 1.2** Level pasture land on west side of road. No fence on east side.
 - 1.5** Branch of railroad, 200 yards long, going east to cane fields.
 - 2.7** Cane fields on all sides. No fence on either side of road.
 - 3.0** Branch of railroad, 300 yards long, going east to wood yard.
 - 5.0** Colonia San José el Chico. At this colonia there are about 60 small wood and native shacks. One large tank with steam pump. At this point road and railroad turn west, going to colonia San Luis. Follow railroad track.
 - 5.5** Colonia San Luis. This is the end of the narrow-gauge railroad. Leaving colonia, the road runs northwest.
 - 7.5** Country very hilly.
 - 8.0** Road crosses hill about 20 feet high; thick underbrush on all sides.
 - 8.7** Level cane fields on all sides.
 - 9.0** A road branches off to the west, going to cane fields. Small stone house on east side.
 - 9.7** Road crosses hill Sierra de Hato Nuevo about 90 feet high. Approach steep, but road very good and suitable for loaded wagons. Wire fence on both sides. Rocky pasture land on all sides.
 - 10.0** Road joins Hato Nuevo-Itabo road on north side of hill. About 1.2 miles from town. Take road going west to town.
 - 11.5** Hato Nuevo.

ROAD No. 20.

INGENIO SAN IGNACIO—JAGÜEY GRANDE.

General direction: S. Distance: 10.5 miles.

NOTE.—During 1908 a metaled road was constructed from Jagüey Grande, north, to Perdomo.

IN GENERAL.

A fairly good dirt road about 15 feet wide. Practicable in dry season for wheel transportation and all arms. Road not drained and in wet season impracticable for wheel transportation.

IN DETAIL.

Road leaves ingenio from south, cane fields on both sides, country level. Road not fenced. Road running south and in good condition. Miles from
San Ignacio

Old road running east and west. Cane fields on both sides. 1.0

Old road runs east and west, level cane fields on both sides. 2.0

Road turns east about 300 yards and then turns south again. East side has stone fence about 3 feet high, 1 foot thick. Hedge fence on west side, level pasture lands both sides. Branch road runs west to Isabel. 3.5

Branch roads to east and west, pasture land to west and cane to east. 6.0

Cane on west side and level pasture land on east side; stone fences both sides of road. 7.5

Cane both sides of road; stone fence on east side and wire on west. Two roads branch, one east and one west. 8.5

Road branches west; road bordered on both sides with trees. 9.0

Road turns west about 100 yards and then south and joins newly constructed macadam road leading into Jagüey Grande. New road, well graded and drained macadam, about 0.5 mile long. 10.0

Jagüey Grande. 10.5

ROAD No. 21.**QUINTANA—EL ROQUE—INGENIO REGLITA—INGENIO SANTA RITA.**

General direction: SE. Distance: 12.5 miles.

IN GENERAL.

1. Quintana to Reglita.—A fairly good dirt road about 15 feet wide, not ditched. Practicable for wheel transportation in dry season. In rainy season covered with water.

2. Reglita to Santa Rita.—A fairly good dirt road about 12 feet wide, not graded or drained. Practicable for wheel transportation in dry season. In wet season under water.

IN DETAIL.Miles from
Quintana.

Road leaves Quintana, running southeast following narrow-gauge railroad; fenced on both sides with wire. Cane east and level pasture west.

0.5 Passes through plantation with ruins of old sugar mill Armonía on west. Road turns south. Laguna Armonía to the west.

2.5 El Roque. Road leaves El Roque from southeast part of town, running southeast. Laguna El Roque and flat, swampy country to west, and banana grove to east.

3.2 Road turns east, level cane fields both sides, fenced on north with wire.

4.0 Ingenio Reglita. Road leaves ingenio Reglita from east side and runs about 800 yards southeast, crosses spur of plantation road, standard guage, and follows spur on east side. Road running due south, cane fields both sides, no fences; telephone line follows road.

5.5 Passes small colonia siding about 600 feet long, with crane for loading cane. Road crosses to west side of track and turns southeast, following railroad. Fenced on both sides with wire and bordered with small trees. Palm grove to east and cane to west. After passing grove, cane all sides.

6.0 Passes three small houses on east. Cane both sides, wire fence on west.

7.0 End of plantation spur; siding 400 feet long; crane for loading cane. About 1,000 yards east of crane road turns due south through cane fields. Branch road runs north to Colón. Wire fence both sides; road good.

8.0 Low land; heavy underbrush to east, cane fields to west, wire fence both sides. Along cane field is a dike

or levee 4 feet high and 2 feet wide to keep water from cane field. Miles from Quintana.

Cane both sides of road. Road bordered with trees on east. Large trench in middle of right of way 6 feet wide and from 3 to 6 feet deep. This trench is used as a road. Dirt taken from trench used to build levee. 9.0

Branch road runs east through wire fence. Road at this point about 5 feet lower than country on both sides; wire fence and open pasture both sides. 9.2

Branch road runs west, pasture and wire fence both sides; end of trench and levee. Small pond of water on east side of road, 100 yards long and from 25 to 100 feet wide. Laguna Trapiche to west. 9.5

Road joins main road from Perico, running southeast. Wire fence east and stone fence west. Level pasture land both sides. 9.7

Passes grove of trees both sides; large dwelling house on west side; wire fence west and bordered with trees; cane east. 10.0

Road turns more to southeast through cane fields; not fenced. Branch road runs south. 10.5

Road crosses main line of U. H. R. R. Ingenio Santa Rita. 12.5

ROAD No. 22.

CEIBA MOCHA—MATANZAS (HILL ROAD).

General direction: NE. Distance: 10.5 miles.

NOTE.—During 1908 a metaled road was constructed connecting Ceiba Mocha and Matanzas.

IN GENERAL.

Fairly good unimproved road, rough in places. Practicable for light loads and country carts for entire distance during dry season, and from ford of San Agustín River to Matanzas at any time.

IN DETAIL.

Leave Ceiba Mocha by north road passing church. Good dirt road across flat cane country. Miles from Ceiba Mocha.

Runs nearly east (road north to Elena and Canasí branches here), and crosses low, rocky ridge. 0.5

Runs northeast and crosses 200 yards of swampy ground caused by springs, and reaches and fords San Agustín 1.5

Miles from
Ceiba Mocha.

- River, here 40 feet wide and 18 inches deep, with firm, sandy bottom, ford nearly at right angles to flow of stream. Rises 4 feet or more during rainy season and would have to be bridged or ferried. Runs slightly north of east over gently rolling country and approaches ridge running east and west (100 to 150 feet) (south slope of ridge nearly paralleling Matanzas-Canasí road), to Paso el Medio, which is a roadside bodega. Just beyond this store road turns abruptly to north (a road here fords the San Agustín River, coming from Acosta), ascends very steep, rough hill, and at summit turns nearly east again. Runs up and down over small spurs of ridge described above; very rough in places. Fine open country mostly in cane in valley of San Agustín to south, and bare, round-top hills running into wooded crest of ridge to north.
- 5.0 Ruins of several stone buildings, 200 yards to north.
- 6.5 Descends by easy, though rough, slope to level of river,
- 7.5 and follows close to water to point near where aqueduct of Matanzas water company crosses. Runs more to north and ascends hills, again keeping general northeast direction; road very stony in places but practicable for wheels.
- 10.0 Turns due east to Matanzas cemetery, where it strikes excellent macadamized surface. Runs east and then slightly northeast to edge of town, where it follows calle
- 10.5 Constitución or calle Contreras to plaza.

ROAD No. 23.

GUAREIRAS—RETAMAL.

General direction: N. Distance: 6.2 miles.

IN GENERAL.

A very good hard dirt road about 30 feet wide, not ditched. Practicable for loaded wagons and bull carts during dry season.

IN DETAIL.

Miles from
Guareiras.

- Road leaves town from the northeast, following east side of railroad track. Cane fields on both sides. No fences.
- 0.5 A road branches off to the east, going to a small colonia.
- 1.0 Level pasture land on west side of road.

Standard-gauge railroad branches off on east side, 300 yards long, going to cane crane. A wagon road crosses railroad track running east and west to Colón and Santa Rita. Miles from
Guareiras.
2.5

Road crosses dry bed of river (Río Cochinos). 3.0

Cane on both sides. 4.0

Rolling pasture land on both sides. Small woodhouse on east side of road. 4.5

Road running northwest and southeast connecting Colón and Perico, crosses main road. 4.7

Underbrush on both sides of road. 5.5

Retamal. 6.2

ROAD No. 24.

CUEVITAS (AGRAMONTE)—MANUEL GARCÍA—MARAVILLA.

General direction: SE. Distance: 6 miles.

IN GENERAL.

The road from Cuevitas to the colonia Manuel García is suitable for wagons during the dry season. During rainy season wagons can get over it, but with difficulty.

IN DETAIL.

Leave Cuevitas by road running south (going to ingenio San Ignacio). Dirt road, 30 feet wide, through sugar-cane country, low and flat. Miles from
Cuevitas.

Take dirt road to northeast, fenced with stone on both sides. Ground on both sides suitable only for grazing animals; has some brush. To take this road you cross the standard-gauge railroad running from Cuevitas south to central San Ignacio. 0.5

Road good for any kind of wagons, surrounding country used for grazing cattle; more brush. 1.0

Road running south, suitable for any kind of wagons. It connects with road running from San Ignacio to Jagüey Grande. 2.0

To south woods, covering about 20 acres. Ground level; ground rocky. There is cane growing near woods. To the north the fields are covered with brush. 3.0

To south of road that goes to cane fields of colonia Manuel García. Another road to north goes to same colonia. Near this colonia runs a narrow-gauge road which carries cane to central Unión. From colonia 4.0

Miles from
Cuevitas.

Manuel García to colonia Maravilla there is no wagon road, only a trail.

- 5.0 Take trail going southeast to colonia Maravilla. Surrounding country covered with brush.
- 6.0 Enter colonia Maravilla. This colonia has telephone communication with Cuevitas. A branch of narrow-gauge railroad runs from central Unión to this colonia. This place has excellent camp sites, suitable for 500 men. Well water; good grass for animals; timber.

ROAD No. 25.

NAVAJAS—INGENIO DOLORES.

General direction: N. Distance: 7 miles.

IN GENERAL.

This road is impracticable for wheel transportation, as in many places it is nothing more than a bridle path. Wheel transportation should go by the way of Corral Falso road.

IN DETAIL.

Miles from
Navajas.

Leaves Navajas from railroad station on north side of track and follows railroad track about 0.2 mile; turns north and follows branch road through cane fields.

- 0.7 Passes crane for loading cane on west side, small siding about 200 feet long, end of branch road; branch road standard gauge. Road at this point turns northeast.
- 1.2 Two roads branch, one to east and one to west, through cane fields; country level and cultivated, cane fields both sides.
- 2.0 Colonia of Arratia and turns north. Cane fields on both sides of road.
- 2.5 Road turns east; fenced; level pasture land on both sides of road; road at this point about 20 feet wide, but has not been used for wheel transportation in a number of years. There is just a bridle path. It is impracticable for wheel transportation.
- 3.0 Sugar-cane fields on north and level pasture land on south; wire fence on south and stone fence about 4 feet high on north.
- 4.0 Road turns northeast. Road running east to La María. Cane fields on both sides. Road not fenced. About

100 yards west of forks of roads road from Pedro Betancourt joins into road from south. Road at this point becomes fairly good.

Miles from
Navajas.

Passes small farmhouse with windmill on west side. 5.7

Road turns north, passes small cemetery with stone wall about 5 feet high; rough, hilly, pasture land east and cane fields west. 6.0

Ingenio of Dolores. 7.0

ROAD No. 26.

CORRAL FALSO (PEDRO BETANCOURT)—INGENIO DOLORES.

General direction: NW. Distance: 5.5 miles.

IN GENERAL.

A fairly good dirt road with the exception of the first 0.7 mile out of Pedro Betancourt, which latter is a well drained and graded macadam road. The remainder of the road is hard dirt, not graded or ditched, but passable for wheel transportation in dry season. Road about 20 feet wide. Impracticable for wheel transportation in wet season.

IN DETAIL.

Road leaves town from north on calle San Juan, well graded and ditched macadam road; ditched on both sides; country level and part cultivated. Miles from Corral Falso.

Crosses railroad track from Cárdenas. 1.0

Road branches west to Navajas. 2.0

At this point road turns east and joins road from Navajas to Dolores. Wheel transportation should go by this road. (From this point to ingenio Dolores, *see* Navajas-Dolores road, which road is joined at the 4-mile point.) 2.5

Dolores. 5.5

ROAD No. 27.

COLISEO—INGENIO EL TRIUNFO (LA JULIA)—GUAMACARO.

General direction: NW. Distance: 9.5 miles.

IN GENERAL.

A rocky road about 10 feet wide, very rough and muddy; practicable for bull carts in dry season. In wet season not practicable for any wheel transportation.

IN DETAIL.

Miles from
Coliseo.

- Road leaves town from northwest corner, crossing railroad track and passing through cut in mountains; direction, northwest. Cut about 300 yards wide. Rolling, cultivated land on both sides after leaving the pass. High hills on north side of road about 400 yards distant.
- 3.5** Low hill commanding road at 100 yards distance; no timber or underbrush on hill; about 50 feet high.
- 4.0** Road turns and runs west.
- 5.5** Three native shacks on south side of road. At this point road turns and runs northwest.
- 6.5** Road crosses hill about 250 feet high and runs through defile with sloping sides from 5 to 20 feet high and about 1.5 miles long.
- 8.0** Low, rolling pasture land on both sides of road. Country broken up with small hills, between which are dry beds of small streams running north and south. This is a part of the Guamacaro valley.
- 9.0** Ruins of large ingenio on west side of road.
- 9.5** Ingenio El Triunfo. (Formerly called La Julia.)

ROAD No. 28.

JOVELLANOS (BEMBA)—INGENIO SANTA FILOMENA (ENRIQUETA).

General direction: SW. Distance: 9.6 miles.

IN GENERAL.

A fairly good dirt road, passable for any wheeled transportation except in extremely wet season.

IN DETAIL.

Miles from
Jovellanos.

- Leave western end of calle José Martí, passing deep natural depression and cemetery (about 100 by 200 yards). Flat country.
- 2.0** Crosses railroad, bearing 310°.
- 2.1** Enters camino Real, turning slightly north. (ingenio Nueva Luisa, distant 0.5 mile, bearing 325°.) Cane land on both sides.
- 2.7** Bearing 195°, curves gradually to westward.
- 3.8** Bearing 240°, curves gradually to westward.
- 4.3** Passes through La Conchita, sugar plantation, and turns south, bearing 175°.
- 5.0** Enters camino Real, which should be taken westward.

Deep irrigation ditch, about 2.5 feet wide, crosses road; would require bridging to avoid long delay with wagons. Miles from Jovellanos. 5.4

Crosses railroad to Medina, turns south along same, and enters colonia María Ponce (old plantation). 6.4
6.5

Crosses railroad (Jovellanos-Montalvo branch of U. H. R. R.) 7.7

Turn west. (Road continues to Corral Falso.) 7.8

Road crosses Jovellanos-Montalvo branch again and turns south. 8.0

Road crosses Jovellanos-Montalvo branch and turns south. 8.6

Santa Filomena (Enriqueta). 9.6

ROAD No. 29.

AGÜICA—INGENIO MERCEDES DE CORRALILLO.

General direction: SW. Distance: 7.2 miles.

IN GENERAL.

A fairly good, hard dirt road about 20 feet wide, not ditched. Suitable for bull carts and light-loaded wagons during dry season.

IN DETAIL.

Road leaves railroad track about 100 yards south of railroad station. Rolling pasture land on both sides. Road runs southwest. Miles from Agüica.

Road passes through old colonia, Fundición. Cane fields on both sides. 1.0

Small pond on west side of road. Wooded country on both sides. Wire fences on both sides of road. 2.5

A few native shacks on side of road. No fences. Cane fields on both sides. 3.2

Colonia Caimital. Standard-gauge railroad, 3 miles long, running west from colonia to railroad connecting Colón and Guareiras. 4.5

A road branches off from main road running east to cane fields. 5.5

Road crosses small stream about 8 feet wide and 2 feet deep. Approaches good. (Source of Río Palmillas.) 6.2

Cane fields on both sides. No fences. Country very hilly. 6.7

Ingenio Mercedes de Corralillo. 7.2

ROAD No. 30.**RECREO (MÁXIMO GÓMEZ)—INGENIO ANGELITITA—ALTAMISAL.**

General direction: SE. Distance: 12.5 miles.

IN GENERAL.

A fairly good dirt road about 12 feet wide, not ditched. Practicable for wheel transportation in dry season only. Practicable for bull carts in rainy season.

IN DETAIL.Miles from
Recreo.

- Road leaves Recreo from northeast corner of town and runs northeast about 600 yards and then turns southeast. Road bordered with trees to west. Cane both sides.
- 0.2** Open, level pasture both sides. No fences.
- 1.5** Road fenced both sides with wire. Pasture both sides.
- 2.2** Road turns to east. Level pasture and wire fence both sides, and about 300 yards after turn crosses road running north and south from small colonia to ingenio Santa Catalina.
- 2.5** Road turns southeast again. Rough pasture and wire fences both sides.
- 3.0** Passes small shacks each side of road. Branch road north and south. North to Sabanilla de la Palma, and south to railroad line. Ruins of old stone building on south side of road. Level pasture and wire fences both sides. Road running east.
- 3.7** Passes small house on each side of road. Cane and wire fences both sides.
- 4.0** Level pasture and wire fences both sides. Road running southeast.
- 5.5** Ingenio Angelita. Road leaves ingenio, running southwest, following standard-gauge spur connecting ingenio with main line. Level pasture land both sides; wire fence south, none north. One wire telephone line following road.
- 6.5** Road crosses railroad, passing through gate in fence, and runs south. Wire fence and cane to west and level pasture east.
- 8.0** End of wire fence and cane field on west side.
- 9.0** Road crosses old Spanish highway running from Habana to Santiago de Cuba. Wire fence and level pasture both sides of road. Running south. From the 9-mile point road not used and overgrown with weeds and grass.

Road passes two small houses on east and turns west through large gate. Cane south and pasture north; wire fences both sides.	Miles from Recreo.	11.0
Passes small colonia and turns southwest through gate. Cane all sides. No fences.		11.5
Altamisal.		12.5

ROAD No. 31.

HATO NUEVO (MARTÍ)—INGENIO SANTA CATALINA.

General direction: SW. Distance: 7 miles.

IN GENERAL.

A good dirt road, but rough. Suitable for light-loaded wagons and bull carts in dry season only. Width of road about 20 feet. Not ditched.

IN DETAIL.

Leave town from the west on Hato Nuevo-Recreo road. After going 1 mile on this road take branch road going south over Sierra de Hato Nuevo. Approaches steep, but road very good. At this point the hill is about 60 feet high. Grade permits loaded wagons.	Miles from Hato Nuevo.	
Road continues to run south, but at this point a road branches west; take road going west. Thick underbrush on all sides.	1.2	
Road continues west, level cane fields on south side. Underbrush on north side.	1.5	
Rolling pasture land on all sides. Hill commanding road 500 yards on north side.	2.0	
Three native shacks on south side of road. A road branches off to the north, going to hill. Road leaves hill to the north.	2.2	
Road turns a little south. Cane fields on all sides. Country hilly.	2.7	
Road passes through small colonia; ruins of old stone buildings on both sides of road.	3.0	
Rocky pasture land on all sides; country not so hilly.	3.5	
A road branches off, going west to Sabanilla de la Palma. Wire fence on both sides of it.	4.0	
Cane fields on all sides. Country level.	5.2	
Road passes through colonia San Ramón; 1 small wood building and 11 native shacks at this colonia.	6.0	
A road branches off southeast to cane fields.	6.2	
Ingenio Santa Catalina.	7.0	

ROAD No. 32.

ISABEL—ORIENTE (RAMONA ROAD.)

General direction: SE. Distance: 9.5 miles.

IN GENERAL.

Leaving Isabel at railroad station on dirt road, 20 feet wide, south; cane fields both sides; stone fences both sides. Excellent road any season.

IN DETAIL.Miles from
Isabel.

- Fenced pasture on the west side, unfenced cane land on
0.7 the east side.
- 2.5 Road runs due west. Pasture on north, cane fields and
palm trees on south. Stone fence south side, wire fence
on north.
- 2.7 Road runs south. Cane fields both sides. Stone fence
east side.
- 3.0 No fence either side.
- 3.5 Road branches off into the cane fields, running north-
east.
- 4.0 San José de Marcos, a colonia. Standard-gauge rail-
road running west to Central Socorro. Two sidings, 300
yards each. Three small wooden buildings and old stone
ruins.
- 4.5 Road turns east, cane on north side, pasture on south.
Stone fence both sides.
- 4.7 Main road continues east. Take road running south.
Pasture both sides. Stone fence west side, wire on east.
- 6.2 Stone wall; old sugar ingenio west side of road. Cane
on east.
- 7.0 Road runs east to small finca.
- 7.2 Here road runs east and west. Road south continues.
Take road east. Rolling pasture south, cane on north.
- 7.5 Road low; rocky. Palms on south side.
- 8.0 Road branches off to north to cane fields.
- 8.5 Road branches off to northeast to Agramonte. Two
small wooden buildings here.
- 9.0 Rolling pasture both sides; also stone fences.
- 9.5 Road enters Agramonte-Jagüey Grande road. This
place is called Oriente. The central San Ignacio is 0.7
mile north.

ROAD No. 33.

COLONIA SANTA ELENA—CUEVITAS (AGRAMONTE).

General direction: NW. Distance: 7 miles.

IN GENERAL.

Fairly good dirt road, rocky, no ditches, suitable for any kind of wagon transportation during dry season. In rainy season not suitable for any kind of wagon transportation.

IN DETAIL

Road leaves colonia Santa Elena, running northwest through level cane field.	Miles from Santa Elena.
Road turns west, cultivated land both sides.	0.2
Road turns southwest, colonia Carratela at turn of road. Fenced pasture land all sides.	0.7
Rolling sugar fields all sides. Stone fences both sides.	2.0
Road turns south. Rocky pasture land both sides.	2.2
Lagoon on west side, surrounded by woods.	2.5
Woods on east, cane on west.	3.0
Stone ruins, building, east side. Road running west to Isabel.	3.2
Rocky pasture lands both sides; stone fences both sides.	4.0
Cane fields west of road. No fence east side.	5.5
Cane all sides.	6.2
Strike railroad about 300 yards southeast; ingenio Unión. Follow railroad southeast into Agramonte.	7.0

ROAD No. 34.

PEDROSO—CORRAL FALSO (PEDRO BETANCOURT).

General direction: NE. Distance: 5 miles.

IN GENERAL.

Impracticable for wheel transportation, as it has not been used in some places for a number of years. From 1.7-mile point to 4.5-mile point impracticable for wheel transportation. Here the road becomes a bridle path. The remainder of the road is a fairly good dirt road and passable for wheel transportation in dry season, but impracticable in wet season. Road not ditched or fenced and about 20 feet wide.

IN DETAIL.

Road leaves Pedroso, running due east, cane fields on both sides of road. Road follows spur of Socorro plantation road, standard gauge.

San Joaquín; end of spur. Large crane for loading cane. Road turns due north, passes ruins of old sugar 1.0

Miles from Pedroso.

Miles from
Pedroso.

- mill and crosses dry bed of small stream, Río Nuevo; timbers of old bridge on west side of crossing, but no planks; timbers badly rotted; cane fields on both sides of road.
- 1.7 Road passes piece of swamp land and turns due east, cane field to south and level pasture land to north. Fenced with wire on north side. Road at this point becomes a bridle path, impracticable for wheel transportation.
 - 2.0 Road passes through small gate and turns due north, level pasture land on both sides.
 - 4.0 Sugar-cane fields on both sides; road fenced with wire.
 - 4.5 Road turns west to ingenio Carmen and one east to Santa Catalina.
 - 4.7 Road turns east for about 100 yards and then north through cane fields.
 - 5.0 Corral Falso.

ROAD No. 35.

MATANZAS—PLAYA UVERO ALTO.

General direction: N. Distance: 5.3 miles.

IN GENERAL.

The road for the first half of the distance is a good macadam road, the remainder a new trail, passable for wagons the entire distance.

It follows the shore line at about 100 yards distance. There is a rocky ridge 80 feet high about 200 or 300 yards to the east. The road is level with heavy underbrush on each side for nearly the entire distance.

ROAD No. 36.

PERICO—INGENIO ESPAÑA.

General direction: NW. Distance: 3 miles.

IN GENERAL.

A good dirt road in dry season, when it is practicable for wagons.

IN DETAIL.

Road leaves town from the north, running northwest through level cane fields. No fence on either side of the road.

Miles from
Perico.

- Road branches from main road going east to colonia
- 1.0 Santa Elena. Wire fences on both sides.
 - 2.0 Crosses a road running from Altamisal to Jovellanos.
 - 3.0 Ingenio España.

ROAD No. 37.

JOVELLANOS—INGENIO NUEVA LUISA.

General direction: W. Distance: 3.2 miles.

IN GENERAL.

In dry season an excellent road for any kind of transportation. In rainy season muddy, but practicable for any transportation. Wagons can leave the road and move in any direction going parallel to the road, if they wish.

Dirt road, about 20 feet wide, no ditches, passing over country badly drained.

IN DETAIL.

Leave Jovellanos via calle José Martí, going due west; cross cement bridge, 30 feet long, 16 feet wide, 6 feet high, spanning Arroyo Burenes, dry during the dry season, but during the rainy season an obstacle of importance. Between the arroyo and the town are Spanish trenches built for the purpose of protecting the town. Two blockhouses at one time protected this bridge. The country is open and rolling. Pass cemetery to south, a good defensive position commanding the west approach of the town; cemetery surrounded by a wall of cement about 2 feet thick and 6 feet high. Cemetery 300 yards square.

Miles from
Jovellanos.

Country open; well and watering tank north side of road. **2.0**

Cross railroad, standard gauge, going northeast; telegraph line, 1 wire, following railroad; wooden poles. **2.2**

Cross bridge, 30 feet long, 12 feet wide, made of steel rails on concrete piers; bridge crosses dry arroyo. **3.0**

Ingenio Nueva Luisa. **3.2**

ROAD No. 38.

SAN ANTÓN DE LA ANEGADA—COLONIA LA FLORA.

General direction: SW. Distance: 3 miles.

IN GENERAL.

A fairly good dirt road, suitable for wagons in dry season and for bull carts in rainy season.

IN DETAIL.

Miles from
San Antón.

Road leaves San Antón, following old grade of narrow-gauge road running southwest; not used for wheel trans-

Miles from San
Antón.

- portation at present, but practicable in dry season. Low, open pasture land both sides.
- 1.0** Passes through gate. Country same as above. Large swamp east.
- 2.5** Passes old ruins both sides of trail. Thick underbrush both sides. Road bordered with 4 rows of palm trees for about 0.2 mile. No fences.
- 3.0** Colonia La Flora. End of narrow-gauge plantation road from ingenio Soledad. At this point good road running southeast through heavy underbrush.

ROAD No. 39.

ALACRANES (ALFONSO XII)—BERMEJA.

General direction: NW. Distance: 3.5 miles.

IN GENERAL.

A fairly good undrained clay road, excepting about 1 mile, which is extremely rough. Practicable for wheeled transportation during dry season only, and then with difficulty over rough portion above mentioned.

IN DETAIL.

Miles from
Alacranes.

- Road runs north over Cidra-Alacranes road to lone ceiba (a road runs west of north from here toward Las Mulas), where it turns north of west and continues with slight deviations to Bermeja. All land in cane.
- 0.7**
- 1.5** Becomes rough, no soil; country uncultivated, covered with brush.
- 2.5** Red clay and cane again. Ruined ingenio 0.5 mile south.
- 3.5** Continues to Bermeja.

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PROVINCE OF SANTA CLARA.

ROAD No. 1.

JATIBONICO—SANCTI SPIRITUS—LAS POZAS—PLACETAS—SANTA CLARA—ESPERANZA (PUERTA DEL GOLPE)—SAN MARCOS—MANACAS—MORDAZO—ÁLVAREZ STATION—MACAGUA (ARABOS).

General direction: W. Distance: 130 miles.

IN GENERAL.

This road is practically that portion of the old Spanish camino general that passes through Santa Clara Province, connecting the eastern and western extremities of Cuba.

1. From Jatibonico to Sancti Spiritus.—A cart road, suitable for wagons in the dry season.
2. From Sancti Spiritus to Placetas.—A wagon road running parallel to and 6 miles to west of the Cuba Company Railroad.
3. From Placetas to Santa Clara.—A fairly good dirt road through gently rolling country, passable for wheeled transportation in dry season.
4. From Santa Clara to Esperanza.—A dirt road, passable for carts and light loaded wagons in dry season. Could be used by carts in rainy season.
5. From Esperanza to Santo Domingo.—A dirt road, suitable for carts or wagons in dry season only.
6. From Santo Domingo to Macagua.—A dirt road, not suitable for wheeled transportation during rainy season.

IN DETAIL.

Miles from
Jatibonico.

- Leave Jatibonico on road running southwest, parallel to and on west side of railroad spur. On west side of road and parallel is the Jatibonico River.
- 2.0 Road crosses to east side of spur and runs due south.
 - 3.5 Spur ends. Road crosses the Jatibonico River at mouth of Arroyo Trilladeras (Pelayo crossing) and runs southwest to
 - 3.5 Cometa. Take road west.
 - 4.0 Pass Pelayo, a settlement.

Pass San Joaquín. Here a wagon road runs northeast to the river.	Miles from Jatibonico. 4.5
Quemadito de Ruiz. Cross Arroyo de las Raizes and Arroyo Sabanilla (dry in dry season) and reach Sabanilla de Lara. Here a cart road runs north. Finca Covadonga to the north.	6.5
Cross Río Zaza. Pass fincas de Peralta, Valle, and Zaza.	8.5
Cart road north and a trail south.	9.0
Cross Río Tuinucú. Continue west. Cross Arroyo de la Cruz (which flows into Río Tuinucú). Pass finca Pueblo Viejo; cross Arroyo Pueblo Viejo and reach finca Luis Gutiérrez. Pass finca Mano del Negro and cross Arroyo Guanábanas.	11.0
Cross Arroyo los Caimitos (over wooden bridge).	12.0
Sancti Spiritus. Leave Sancti Spiritus on road running northwest, following telegraph line.	16.0
Cañizares. A cart road northwest. Hato Yayabo on the left. Cross Arroyo Tosca.	16.5
A cart road southwest. Pass finca de Gallo on left.	17.5
Cross Arroyo Bejucal.	19.5
Cross Arroyo Mulato.	21.0
Cart road north.	22.0
Cross Arroyo Mojón.	22.5
Cross Arroyo Macaguabo, leaving place of same name on left. A cart road runs south.	23.0
Cross Río Tuinucú. Enter finca Entrada del Harriero.	23.5
Cross Río de las Vueltas.	25.5
Reach Santa Lucía. A cart road runs northeast to Cabaiguán.	26.0
Cross Arroyo las Avispas at Juan Diaz.	27.0
Las Pozas. Trails northeast and southwest.	29.0
Cross Río Calabazas near its origin.	32.5
Nazareno. Cross Arroyo de Vázquez. A trail northeast and southwest.	34.0
Here the road runs due north, and the old Spanish main road continues northwest through Baez and Guaracabulla to Santa Clara.	36.0
A trail runs southeast.	40.0
Cross Río Aguacate and Cuba Company Railroad. Continue north. Cross Río Zaza.	41.0
Placetas. Leave Placetas on dirt road west to Falcón, a railroad station on Cuba Company Railroad.	45.0
Cross Río Sagua la Chica twice within 0.5 mile.	46.0
	50.0

	Miles from Jatibonico.
Crossroad going east and joining with Camajuaní- Falcón road.	51.5
Palo Prieto.	52.0
Crossroads from north come in here, connecting with Santa Clara-Camajuaní road.	53.0
Manajanabo.	54.5
Spur road running north and connecting with Cama- juaní-Santa Clara road.	56.5
Road crosses branch of Río Ochoa; camp site here.	57.0
Crossroad runs northwest to Loma Cruz. The road enters the Santa Clara-Camajuaní road and enters Santa Clara. Leave Santa Clara at northwest part of town, passing cemetery on right. Pass location known as Punta de la Cana and Arroyos Carrascal and Asiento Viejo (or Jagüey).	57.5 64.0
Take a dirt road running north.	67.0
Cross railroad track.	68.0
Cross Arroyo Grande. Take road west.	69.0
Reach Esperanza (or Puerta del Golpe). During the last 4 miles Arroyos Blanquizar (or Anoncillo) and Los Pulidos are passed, flowing into Arroyo Grande. Leave Esperanza on cart road, going west.	73.0
Hierro.	75.0
Cart road north.	76.0
Cart road north.	77.0
Cross Arroyo Jarico.	78.0
Point called Nombre de Dios or Asiento Viejo. Here the Jicotea road runs north, crossing Arroyos Piedras and del Medio. At Nombre de Dios take road west, and cross Río Sagua la Grande at a sitio called Paso de San Vicente.	79.0 79.5
Cross narrow-gauge railroad and Arroyos Bailén de la Cruz and de Busca, and reach San Vicente. From here a road runs to San Marcos and one to Lajas through Las Nuevas. Take road to San Marcos.	80.5 82.0
Road leads across Arroyo San Vicente; crossing bad for carts in rainy season. Road passes through palms and brush.	83.0
Road runs west. Reach the road from Las Nuevas and Lajas road 1.2 miles from San Marcos, through open country with some palms and brush.	84.0
San Marcos. From this point turn north and follow	88.0

Miles from Jatibonico.	dirt road along railroad to Santo Domingo. From this
93.5	point take dirt road west along railroad.
98.5	Central San José or Hatuey.
99.5	Manacas. Take wagon road west along railroad.
106.0	Pass between the lagoons of Mordazo which form the source of one of the branches of Río Voladores.
107.0	Mordazo. Leave Mordazo and go northeast.
109.0	Pass group of huts; well water.
111.0	Road runs northwest.
113.0	Pass farmhouse; well water.
114.0	Railroad station of Álvarez. Leave Álvarez station
117.0	and follow cart road north to Álvarez. Take road west, crossing Río de la Palma on wooden bridge.
122.0	A road runs south to San Pedro de Mayabón.
130.0	Macagua (Arabos).

ROAD No. 2.

LAS CHAMBAS—MAYAJIGUA—AGUADA DE PASAJEROS—YAGUAJAY—
LAS PAPAYAS—SAN JUAN DE LOS REMEDIOS.

General direction: W. Distance: 46 miles.

IN GENERAL.

1. From Las Chambas to Yaguajay.—A dirt road running along the base of high hills to the south. Suitable for wheeled transportation only in dry season. Loaded wagons would have difficulty in any season.

2. From Yaguajay to San Juan de los Remedios.—A dirt road, good in dry season for bull carts; not suitable for loaded wagons.

IN DETAIL.

Miles from
Las Chambas.

Leave old hacienda de las Chambas on wagon road, running southwest, crossing Río de las Chambas. Take wagon road west at Piedras. Pass sitio known as Mabaya and cross Arroyos Jequí, Asiento Viejo, and Barral, all small streams. The Sierra de Jatibonico is on south of road.

- 6.5 Cross Río Jatibonico del Norte at Paso Real. Cart road running north.
- 7.0 La Legua, a finca. Cross Arroyo Canoa.
- 8.0 Cart road south. Sierra de la Canoa to the south.
- 10.0 Mayajigua. Sitio of Los Baños to the south. Cart road north to coast.
- 12.0 Trail south. Pass Aguada del Santo and reach
- 15.0 Aguada de Pasajeros. Narrow gauge railroad to Yagua-

jay. Pass Ojo de Agua, Loma de la Canoa, and cross Arroyo Aguedita. Miles from
Las Chambas.

Centeno. Cross Arroyo Piedras, also Arroyo de Marcos and Arroyo las Puentes, and cross Río Yaguajay (or Cristóbal) Sierra de Meneses y Guelo to the south. 21.0

Yaguajay. Continue west. Cross Arroyos Lindero and Cajiales. 24.0

Guanabo. Cross Arroyos Bamburanao and Ciego Arriba. 26.5

Santa Cruz. Cross Río Guainabo (or Seibabo) and reach Seibabo. Narrow-gauge road. Take dirt road west. To south, a range of hills known as Sierra de Bamburanao. Cross Arroyo Santa Rosa. 28.0
31.0

Santa Rosa. Leave this place on a good road and pass Plateros and Arroyo Tasajeras (4 feet deep, flowing in road). 33.0

Yagüey. Cross Arroyo Yagüey and pass sitios of Gueiba and Guaní, crossing Río Managuimba, and pass Loma El Seborucal to the south. 36.0

Las Papayas. 39.0

Cross river Guaní at Guajábana; a hill to the north called Ceja de Muertos. 42.0

Cross narrow-gauge Cuban Central Railroad at Rojas. Cross river, here called Caibarien, and higher up called Jiquibú. Pass old ingenio Torre and cross Arroyo Padre Manso. 43.5

San Juan de los Remedios. 46.0

ROAD No. 3.

CIENFUEGOS—CAUNAO—SOLEDAD—SAN ANTÓN—CASTILLO—
GAVILÁN—GUAGIMICO—CABAGAN—TRINIDAD.

General direction: SE. Distance: 57.5 miles.

IN GENERAL.

1. From Cienfuegos to Castillo.—From Cienfuegos to Guaos is a good ballasted road. From there to Soledad is a poorly ballasted road. From Soledad to San Antón is practicable for bull carts in dry season. From this place to Castillo is a trail practicable for cavalry, but muddy in places.

2. From Castillo to Trinidad.—A good wide dirt road 60 feet between fences. In dry season wagons could be hauled over it from Negritas de Gavilán to very near San Juan, but it would be necessary

to repair where streams are crossed, as it is badly worn at those places. From San Juan to the Las Cañas River it is nothing but a mountain trail, passable only for foot passengers and pack animals. From Las Cañas River into Trinidad wagons could be used, but it is very rough and stony in places.

IN DETAIL.

Miles from Cien-
fuegos.

- Leaving United States troops' camp from the west
- 0.7 proceed northeast through the eastern edge of the city, over made roads, and, after crossing a small hill, join the calzada Real de Dolores.
- 1.0 Follow the calzada de Dolores, which has stores and houses on both sides, and pass a road turning off to the northwest for Manacas. There is a concrete blockhouse just north of the junction of these roads, known as Fuerte Numancia.
- 2.7 Road goes northeast, gradually ascending a small hill, and passes a trail, turning off to the west for the Regla sugar mill.
- 2.9 Trail branches off to the southeast (through gate) for Calabazas.
- 3.0 Passes an old sugar mill called Caridad, about 100 yards to the east. At this point the mains of the city water works leave the road to the west for the pumping station at Candelaria.
- 3.6 Passes a trail branching off to the southeast for Josefa. Branch road goes through gate.
- 4.5 Enters village of Caunao. Here there are roads leading to Ciego Alonso and Camarones (to the north) and to Palmira (to the northwest).
- 5.2 Road turns to the southeast and, after leaving village, passes a branch road going almost due south to Josefa. The road passes through large gate.
- 6.5 Road continues to the southeast and enters the village of Lagunillas. Here there is a public ferry across the Caunao River crossing, called Paso de Lagunillas. A bridge is being built. Just after crossing stream a trail going to De Soto branches off to the south.
- 7.3 Road continues to the southeast and passes a branch road leading northeast to Caledonia.
- 9.0 Road turns more to the southeast and gradually ascends small hill, and after passing 0.2 mile to the south of colonia Rosario crosses a private narrow-gauge rail-road going south to Soledad.

Road continues to the southeast and crosses another narrow-gauge railroad.	Miles from Cienfuegos. 9.7
Leave the Caunao-Guaos road, immediately turning to the south, and follow the railroad to Soledad.	11.2
Leave Soledad from the southwest, passing between the sugar mill and the water tank, and travel due west, to the Lagunillas-San Antón-Arimao trail.	11.6
Travel southeast over San Antón trail and cross a small stream flowing to the southwest. A narrow-gauge private railroad is crossed just after reaching the creek.	11.8
The trail, turning south after crossing the creek, passes over high rolling grazing lands, with bare hill on the west commanding the country in all directions for a considerable distance, and passes a small store near San Antón. Trail has several mudholes in rainy season.	12.8
Continue south and pass through cut and ascend small hill.	12.9
Trail passes over high rolling country covered with grass and enters the village of San Antón (Las Palmas). At the northern end of San Antón leave the main trail by turning west (240°), immediately passing through large gate.	13.4
Trail passes over high rolling grazing lands and enters Santa Rosalia, an old sugar mill with a cattle corral and four or five houses. There is an old Spanish fort here.	14.7
Leave Santa Rosalia to the west, ascending small hill after passing old masonry blockhouse, and turn to the south. At this point a trail goes due west to a farm on the Caunao River called San Mateo.	15.0
Continue south (200°) and gradually ascend a small hill. Trail over high grazing lands. At this point a branch trail goes west (250°) to a farm some distance off. Large buildings in Cienfuegos (295°) are visible from this point.	15.6
Trail makes a slight turn to the south, crosses small stream, passes through gate, and ascends hill. Grazing lands on both sides of trail.	16.2
Travel southeast (170°) and pass a cattle corral to the west. Woods to the west and pasture lands to the east.	16.7
Trail (170°) goes down a small hill and passes through gate. Woods to the west and pasture lands to east.	17.1
Continues southeast (170°) and passes through gate and immediately crosses a small stream flowing to the southwest.	18.6
Trail goes through woods and on the east side of the creek to forks of trail.	19.1

Miles from Cien-
fuegos.

- Both branches of trail go around hill (one on each side) to Castillo, a village. Castillo is on the north bank of the Arimao River, 200 yards distant. Cross Río Arimao.
- 19.5** Road crosses Gavilán River, small stream 1.5 feet deep, 20 yards across; road worn at approaches, country still open and rolling, with marshy tendencies on both sides for short distance after crossing the river.
- 23.0** Village of Gavilán. A road turns northeast here to La Sierra; another goes to the mountains to the east; another turns southwest to the mouth of the Río Gavilán. Mount Pico Blanco about 5 miles to the northeast. Road follows formation of country and rises and falls gradually.
- 25.5** Guanábana, small farm; cross arroyo of same name. Country both sides still open and rolling, with clumps of trees here and there. To the south and southwest a range of hills, Sierra de Santa Teresa, parallels the coast and obstructs view of ocean. The road begins to bear to the southeast.
- 30.5** Guagimico, small place. On the left the mountains, known as Cabeza del Muerto, have come down in gradual descent from Mount Pico Blanco to hills about 500 feet above sea, and at this point are but 100 yards from the road. On the right the line of hills has approached to within 200 yards of the road, thus closing in the open rolling country. On the right the hills break, forming an arroyo, with same name as above place. These hills are quite heavily wooded; those on the left have been open, but here begin to be crowded. The road turns almost due east at this point. There is a foot trail turning north at this point and, crossing the mountains, comes out on the trail entering Gavilán from the east. There is another trail turning south and going to the beach.
- 32.0** San Juan River, and several farms in group, called San Juan. River easily fordable, sandy bottom, 30 feet wide and 2 feet deep. From this point road becomes a trail or footpath following left bank of San Juan River. On the left the mountains rise from the road to 500 and 600 feet and are wooded, hence nothing can be seen of the country beyond. On the right a valley is formed by the range of hills following the coast. Two or three small farms can be seen in the valley.
- 33.5** A very dense swamp on the right for 0.5 mile called Cumanayagua, utterly impassable; on the left the

mountains are still close to the road. Immediately after passing the swamp the road gradually ascends to what is called Little San Juan, a farm on the right. Miles from Cien-
fuegos.

Inglés (on arroyo of same name), a small store and cattle farm. The low hills along the coast end here, an open pasture land extending to the beach. The mountains which have lined the road on the left here cross it and the road makes a very sharp ascent, going over them. 37.5

Canita, a small store. From this point, which is about 500 feet above the sea, an excellent view of the ocean is to be had on the right; the hills, heavily wooded, gradually sloping to the sea. To the left mountains are to be seen in all directions, especially Loma Palo Seco, some wooded, others bare, showing a very rough and rugged country. The road here rises and falls, conforming to the irregularities of the country. 39.0

The Yaguanabo River. The road here descends very rapidly, making it dangerous for heavily laden mules. On the left is seen the valley of the Yaguanabo, about 0.7 mile wide and lined on each side by high, sharp peaks, which are almost straight up and down. To the right, toward the sea, the valley is very narrow and irregular, lined by heavily wooded hills. As you look up the valley, three or four shacks and excellent pasture land can be seen. In the distance to the north it seems one mass of mountain peaks. The river is easily fordable and the road ascends just as sharply as it descended, making a very tedious climb. Up to this point, with the exception of a few breaks, the road has been lined with barbed wire fences on both sides. Here it is lined on the right with a stonewall and on the left with barbed wire. Two trails on either side of the Yaguanabo River come down the valley and enter the main road, one just before the sharp descent and the other just after the ascent from the river. 42.0

Old cemetery, surrounded by stonewall 2.5 feet high, on left of road. 42.5

The road after rising and falling quite sharply, again makes a rapid descent to the valley of the Río Hondo. This is very unlike the valley of the Yaguanabo. It is much more inclosed and so heavily wooded on both sides that nothing can be seen but woods either up or down the valley (Lomas de Saguarto). The river is easily fordable and a trail leading up the valley enters the main road at 45.5

Miles from Cien-
fuegos.

- the fording point. The road again rises much more gradually. To the right the view is obscured by woods and the ocean can not be seen, but the intervening country is wooded.
- 50.0** Cabagán. The road after rising and falling several times again descends to the Cabagán River, where is a small group of shacks called Cabagán. The river is easily fordable and the road is down almost to sea level, though the sea can not be seen, owing to some low hills near the beach. The road at this point is less than a mile from the beach. The valley is very narrow and looking north is inclosed by Loma del Burro, high mountains. The road gradually ascends, wooded on both sides with a species of tree called Aroma.
- 51.5** A trail comes out of the mountains on the left and joins here. This trail leads up the Cabagán River valley. Road is quite level here; stonewall on right; nothing on left except a growth of Aroma.
- 53.0** Guanayara River, and a small farm called Guanayara del Sur. One-half mile before reaching the river a trail comes out of the hills and enters the main highway. This trail goes up the Guanayara River valley.
- 55.0** Las Cañas, a store. A trail from Aguacate comes out at this point. The Las Cañas River crosses the trail here. Easily fordable.
- 57.0** The Táyabas (or Río Guaurabo) River, reached after passing Guaurabo, a small farm 0.7 mile from the river. River 50 yards wide, 2.5 feet deep, easily fordable in dry season.
- 57.5** Trinidad. In the rainy season the rivers are said to be raging torrents, unfordable for days at a time. In the dry season all are easily fordable for all arms.

ROAD No. 4.

SAGUA LA GRANDE—VIANA—MATA—SANTA CLARA—MANICARAGUA—
GÜINIA DE MIRANDA—TRINIDAD.

General direction: SE. Distance: 77.5 miles.

IN GENERAL.

1. Sagua la Grande to Viana.—Dirt road over which very little wheeled traffic passes. Practicable in dry season for bull carts and light-loaded wagons. No steep grades.

2. Viana to Mata.—A good ox-cart road.

3. Mata to Santa Clara—A fair ox-cart road which becomes a mere trail in the savanna country.

4. Santa Clara to Manicaragua.—The road is unimproved and is rather hilly. It is rocky in places but has less than the usual number of mud holes and is passable for two-wheeled carts in the dry season and for saddle and pack animals in all seasons. It is the road used during the wet season for all traffic between the two towns. No large streams. All arroyos are fordable. No steep grades.

5. Manicaragua to Güinia de Miranda.—This road leaves Manicaragua at post-office and runs in a southeasterly direction. It is one of the three routes to Trinidad. A fairly good dirt road up to Mabujina, where it becomes very steep and stony, constantly ascending through small, narrow and very rocky ravines, but passable to a pack train with difficulty.

6. Güinia de Miranda to Trinidad.—A mountain road, crossing many streams which become obstacles during the rains.

IN DETAIL.

Leaves the town, crossing the steel bridge across the Río Sagua la Grande east of the town, crosses the Resulta narrow-gauge line 150 yards from the bridge, turns south-east and follows the railroad track for 500 yards, recrosses the track and follows parallel to it for 500 yards. At this point a trail follows the track southeast to the Resulta central, continuing through Resulta parallel to the track to Viana. The road turns around the head of an arroyo, turns sharply to the southwest, follows the bank of the Río Sagua la Grande for 800 yards, where it joins a road from the town. This road leaves the town from the south, descends to the river (15° slope). Good ford; gravel and stone bottom, 2 feet of water in dry season, also rope ferry for foot traffic; only means of crossing in rainy season. Could carry loaded escort wagon with mules. River 100 yards wide.

Miles from
Sagua la Grande.

1.0

Road turns slightly west of south, following river bank. Level, grassy land to east; brush and grass on west bank of river.

2.0

Road rough and rocky for 200 yards. Road turns in a southwesterly direction; another road continues along the bank of the river to Sitiecito. Deep mud on Viana road 400 yards from the turn. Grass and palms on both sides of the road.

4.0

Road crosses small stream.

Miles from
Sagua la Grande.

- Road crosses the Santa Teresa narrow-gauge at
4.5 Crucero. A wagon road turns south at this place to San Miguel.
5.0 Cane on both sides of the road. Bad mud hole.
5.7 Trail leaves the road, turning southwest to Sitio Grande.
6.0 Bad mud hole at Palmarejo. Range of grassy hills, partly cultivated, to south and west, within artillery range of road.
7.3 Road passes through La Joaquina. Four bad mud holes from Palmarejo to this place.
8.0 Grass and palms to north and south. Road continues muddy to Viana.
9.0 Viana. Leave Viana, following the narrow-gauge railroad south.
10.7 Guayabo Cuartel. Here a good road branches off to northeast for 1.5 miles and joins the Calabazas road.
11.0 Cross narrow-gauge road which runs from Guayabo Viejo to Sagua via Guayabo Cuartel and Viana.
12.5 Crossroads. One road due east and another northeast. Well water here.
12.7 Guayabo Viejo. Ruins of Spanish fort; water in plenty; a road runs northeast.
14.7 Santa Lutgarda. Here five roads cross. Take wagon road southeast.
15.5 Mata. Leave Mata, going south. Follow base of a hill via ingenio Macagua.
16.0 Road becomes a mere trail over open prairie land, bearing southwest.
18.0 Crossroad from San Antonio-Mata road.
18.5 Road runs south. It is simply cart tracks through low savanna country, difficult in rainy season.
21.7 Cross two small streams, over wooden bridges; both flowing southeast. Scattered cultivation; tobacco.
22.7 Cross wooden bridge 20 by 15 feet over arroyo flowing southeast. Road bears southwest. Cross Arroyo Grande
24.0 and enter Santa Clara. The road leaves town on Cuba street. Take the first branch road to the east about 100 yards from the southern end of town, passing Arroyo de los Pitos, finca Ceja de Algodones, and source of Río Ochoa. Cross Arroyo Caney.
29.5 Escambray. To this point the government telegraph line from Santa Clara to Guaracabulla follows the road, which runs on high ground over Piedras de Amolar and is at places rocky; south and east of this place the road

crosses the Sierra del Escambray—elevations about 1,000 feet above surrounding country. Arroyo de Amolar and Arroyo de la Bomba are also crossed. Miles from
Sagua la Grande.

Rebarcadero store. 33.5

Provincial and crossroads to Baez. South of this point the road crosses a ridge known as Sierra María Rodríguez. 38.5

Manicaragua. 47.5

Road to south and west to Pueblo Viejo and Loma Tres Cruces. 47.7

Road turns more to east; road straight ahead goes to finca. Loma Sudadero to northeast. 48.0

Road crosses branch of Arimao or Río Manicaragua, a fairly good stream about 10 feet wide, 2 feet deep; subject to freshets as all of the streams are in this section, with a rise of 20 feet. 49.2

Road winds around the side of Mount Chena, a mountain about 600 feet high, and a prominent landmark through the whole Manicaragua valley. 50.0

Road crosses Arroyo de Juan, a small stream; the road down to crossing for 0.2 mile is very steep. 50.5

General store Juan Rivero; there is also a crossroad that leaves this point, running north, and joins one of the Santa Clara roads via María Rodríguez. 51.0

Road ascends hill and crosses Arroyo de Juan three times in 0.2 of a mile. 51.5

Road crosses Mabujina River; a good stream 20 feet wide, 3 feet deep, with low banks and a good hard bottom. Road is very steep and rough, descending to crossing. Mabujina lies on north bank of river about 200 yards from road. 52.5

Road crosses branch of Arimao River. House Juan Francisco on right of road. 53.0

El Quirro trail joins at this point. Sierra del Jagua to the east. 53.2

Road crosses Arroyo Viscaya twice. 54.2

Road goes up and around hill; very steep in places. 55.2

House, La Mula. Road crosses Arroyo Viscaya 200 yards below. 55.7

Road crosses Arroyo Viscaya again. A good stream with a good hard bottom. 56.0

Back trail to Pablo Grande and Victorine. 56.2

Road runs northeast. Prado River parallel to road on right. 57.7

Miles from
Sagua la Grande.

- 58.5** Gūinia de Miranda. (From Gūinia de Miranda to Trinidad, *see* Caibarién-Camajuani-Santa Clara-Placetas-Nazareno-Fomento-Gūinia de Miranda-Trinidad road from 73-mile point to 92-mile point.)
- 77.5** Trinidad.

ROAD No. 5.

CAIBARIÉN—CAMAJUANÍ—SANTA CLARA—PLACETAS—NAZARENO —
FOMENTO—GŪINIA DE MIRANDA—TRINIDAD.

General direction: SW. Distance: 92 miles.

NOTE.—During 1908 a metaled road was constructed connecting Santa Clara and Remedios, via Camajuani.

IN GENERAL.

1. Caibarién to Camajuani.—A fairly good dirt road in the dry season, but in the rainy season parts of the road would be impracticable for wagons.

2. Camajuani to Santa Clara.—Approximate route of the old camino real to Remedios, and is the route of the projected and partly completed metaled road to Camajuani. The road is ballasted and ditched, and is 12 feet wide for 3 miles from Santa Clara, and passable for all arms and classes of transportation for that distance. The remaining 10 miles is wholly unimproved, is a sea of mud in the wet season, and passable for carts only in the dry season.

3. Santa Clara to Placetas.—A road suitable for wagons during dry season only.

4. Placetas to Fomento.—With the exception of 1 mile of this road leading south from Placetas, the road is unimproved all the way to Fomento. Up to Nazareno this road is the main one from Placetas to Sancti Spiritus. From Nazareno to Fomento the road can only be considered a trail, since in places it would be scarcely possible in dry weather to get wagons around bad places. This is the shortest road from Placetas to Fomento, but for artillery or wagons a better road is by way of Guaracabulla or Baez. The trail from Nazareno is hilly, though not too steep for wagons or artillery, and could be made passable for same with a few hours' labor of troops. With the exception of a few minor places, the roadway and trails are inclosed with barb-wire fences. There are no steep grades, except a portion of the trail 1.5 miles north of Fomento, where the gradient for about 300 yards is about 5°. Main road for all seasons of the year passable only for native carts.

5. Fomento to Trinidad.—As far as Miranda the road runs through rolling sabana country. It is suitable for ox carts only. Artillery could pass with great difficulty.

IN DETAIL.

	Miles from Caibarién.
Leaves Caibarién from the south, crosses the narrow-gauge track (Cuban Central); short range 100 feet high on the left; passes Reforma (sugar mill); crosses the Caibarién River (small stream) and Reforma Railroad (narrow), which runs to Rojas. Broad-gauge railroad (Cuban Central) on right; 100-foot hill on right.	2.0
Enters San Juan de los Remedios; thus far a fine macadam road, through level country; telephone line along the road. Leaves west side of town; hill to left (150 feet) with a long, low range beyond.	5.0
Road becomes bad in many places; large rocks; hill (100 feet) to right; crosses small stream.	10.0
Enters Taguayabón; crosses small stream; road improves for short distance, then rolling country is reached, and steep grades are met; mudholes; crosses small stream.	13.0
Enters Camajuaní. Cuban Central Railroad (standard) runs to the right of and near the road, for entire distance. Leave Camajuaní.	18.0
Cross Río Camajuaní, 50 feet wide, 1.5 feet deep, fordable by horses, but subject to big rise in rainy season. Cross Arroyo Veron.	19.5
Río Sagua la Chica, 30 yards wide, 1.5 feet deep; fordable by horses; subject to rise during rains.	21.0
Road passes over south end of hills. This range, Lomas de Santa Fé, lies north and south, maximum elevation being 100 feet. Cross Arroyo Mojón, a small stream, and pass La Cruz, located on Loma de la Cruz, south of and commanding road.	24.0
Río Ochoa, 20 yards wide, 1.5 feet deep, steep banks; fordable for horses, but difficult for wagons.	25.0
San Antonio; private railroad.	26.5
Dos Capitas; hill 0.5 mile south of road, 200 feet high.	28.5
Enter Santa Clara. (From Santa Clara to Nazareno, see Jatibonico-Sancti Spiritus-Las Pozas-Placetes-Santa Clara-Esperanza (Puerta del Golpe)-San Marcos-Manacas-Mordazo-Álvarez Station-Macagua (Arabos) road from the 40-mile point to the 64-mile point.)	29.0
	31.0

Miles from
Caibarién.

- Nazareno. Trail from northeast to southwest crosses main road at Nazareno. This trail connects the station Máximo on railroad with Nazareno and Fomento. The main road continues to the south and east to Sancti Spiritus. Take trail southwest.
- 55.0 On the trail about 0.5 mile from Nazareno toward Fomento, small stream of water is crossed—a branch of Río Guaracabulla. Good water and camp site; low banks; good bottom.
- 59.0 Trail crosses hilly country. Crosses small stream. Fine water and plentiful; depth about 1 foot, 10 feet wide, and running; low banks; rock bottom; good camp ground here. Near this place road passes through stone gorge not wide enough for wagon or ox cart. This is a difficult place that would have to be gotten around by wheel transportation.
- 60.0 Another small stream, similar to last described, crosses trail, flowing south.
- 61.0 Fomento. Leave Fomento on trail southwest.
- 62.0 Cross Río Agabama.
- 62.5 A trail branches north to La Sabe.
- 64.5 Cross Río Agabama.
- 65.5 A trail runs northwest.
- 66.0 Tres Pasos.
- 68.0 Cross Río Jicaya.
- 70.0 Güinia de Miranda. Leave this place south and cross Arroyo Prados, and cross Loma de Degollada.
- 72.0 Hernández.
- 73.3 Cross Río Seibabo.
- 75.5 Quemado Angulo. Crossroads. A road southwest to Loma del Yagunal; southeast to Santa Ana. Take the latter.
- 78.0 Limones. Here a trail runs east to Manacas. Continue southeast.
- 79.0 Santa Ana. A trail east. Pass finca El Cobre and
- 82.0 cross Arroyo Cayajacas to Río de Ay.
- 82.5 Cross the river, road going west to old ingenio of Corojal. Here a wagon road runs north.
- 83.3 Cross Arroyo Magua, near old ingenio of that name.
- 84.0 Cross another branch of Arroyo Magua.
- 85.0 Cross narrow-gauge railroad. Road runs southwest along telegraph line. Pass Loma del Puerto, where a road runs to Sabanilla. Pass La Tienda and Arroyo del Masio.
- 89.0 Cross Arroyo Hondo (Río Táyaba) and reach Trinidad.

ROAD No. 6.

POJABO—BANAO—SANCTI SPIRITUS—TAGUASCO—IGUARÁ—PASO DE
JOBOSÍ—JOBOSÍ—YAGUAJAY.

General direction: NE. Distance: 72 miles.

IN GENERAL.

1. Pojabo to Sancti Spiritus.—Good road for packs or ox carts; very rough for wagons, but passable. Gravel or rock nearly all the way, but several soft places. Largely savanna, many cattle and much timber near Banao.

2. Sancti Spiritus to Taguasco.—Passable for wheel transportation in part only.

3. Taguasco to Paso de Jobosí.—Dirt road. Beyond Nozatlillo passable only for bull carts.

4. Jobosí to Yaguajay.—Dirt and rock. To Meneses, good for wagons in dry season; remainder horse trail.

IN DETAIL.

Leave Pojabo sugar mill on road running north; at 300 yards is Río Pojabo—good water with a hard bottom. This stream is likely to be difficult to cross during rainy seasons. Road continues north.

Two streams 0.2 mile apart. They are Ríos Cuchara and Limpia. The first has very muddy banks, bottom muddy. The second is easier to cross.

Cemetery, with stone wall. 4.0

Banao. Town situated on west side of river, along bank, at foot of high hills. Cross Banao River, ford 1 foot deep. To west Las Lomas de Banao. 4.5

Road from Sierra comes in from left. Finca Banao to left. Road passes through a wood, Ceja de Banao. San Pablo de Ojabo. Sawmill on Arroyo Mojón. 6.5

Trail to right through San Pablo. 9.0

Finca Manacas to left (old ingenio). 9.2

Cayajana River—fordable at all times. 10.0

Finca San Antonio Polo, 0.2 mile to right. Telephone to Sancti Spiritus. 10.5

Arroyo Sabanilla—fordable at all times. 11.5

Arroyo Jarao. Cross railroad. 13.0

Pass stone house at point known as Horqueta de las Minas. Also location of tienda de Penton. Road to right to Jarao and Paredes. 13.5

Cross Jubainicú River. Easy ford. 15.5

Miles from
Pojabo.

- Road approaches railroad. Location of blockhouse, 2 tiers, 12 feet square.
- 16.2 Tile factory. Pass along side of railroad. Sierra to the left. Jíbaro road turns off to right. Repair shops of railroad. Cross Yayabo River on stone bridge—easy ford 100 yards upstream.
- 16.5 Sancti Spiritus. Leave Sancti Spiritus, going north-east.
- 16.7 Municipal jail and hospital to left; bridge over Arroyo Los Caimitos 50 feet, wooden, 200 yards farther on; ford for same road around left of jail and hospital, impracticable for wagons.
- 17.0 Wire fence along road begins.
- 17.5 Bad mud hole, impassable for wagons, but ox carts get through.
- 17.7 Arroyo Guanábanas, shallow ford, sand bottom, passable at all times. Stone fence along right side of road.
- 18.0 Road to right to San José. Road winds around hill to left, passes brick house 100 yards to left on hill 30 feet high, around to right and passes through saddle in hills, white cliffs on both sides, saddle bears 43° from stone church tower, Sancti Spiritus.
- 18.5
- 19.0 Very small stream, mud hole.
- 19.2 Very small stream, mud hole.
- 19.5 Thatch house 50 yards to the right, small stream flowing southeast, brick ruin on hill 100 yards to left, then road to left which joins road to Tuinucú and Arroyo Grande.
- 20.0 Tuinucú River, banks 100 feet high; approach right bank stone road, left bank dirt and very much cut up, impracticable for wheeled transportation though ford is shallow except just after heavy rains. River flows southeast.
- 20.5 Top of left bank, thatch house to left, road very bad.
- 21.7 Road just passed very bad, many mud holes; road rises.
- 22.5 High hill nearly 200 feet above Zaza River bed, giving view of surrounding country.
- 23.2 Remains of blockhouse on hill to left, railroad station of Zaza del Medio and savannas near it come into view.
- 23.5 Zaza River ford, uneven rock bottom, 2.5 feet deep, dangerous, impassable for wheeled transportation.
- 25.0 Pass Zaza station on left; fenced road begins.
- 26.7 Arroyo flowing to right; shallow ford.

Miles from
Pojabo.

Arroyo flowing to right; mud holes; two small bridges for horses.	27.5
Road passes through gap in Siguaney Hills, low north and south range.	27.7
Siguaney, on Cuba Company Railroad; 150 yards siding, no station or telegraph.	28.2
Arroyo, flowing to right; mud holes.	28.5
Arroyo, steep banks, shallow ford, passable for wagons by doubling up.	29.2
Round wooded hill near Siguaney bears 298°.	29.5
Crosses Cuba Company Railroad.	30.0
Road to left to Limpios de Taguasco, large two-story brick house.	30.7
Small brick house to left; ford of Taguasco River 200 yards farther on; rock bottom, shallow, banks not steep for wagons. (Road from Siguaney to this point good.) Road turns to left to Limpios at ford; river flows to right.	31.5
Cart road (through gate in fence) to right to Taguasco railroad station; last 0.7 mile of road has many mud holes.	32.2
Taguasco railroad station, Cuba Company. From Taguasco take cart road running east, north side of railroad.	32.5
Ojo de Agua; a wagon road south.	34.5
Iguará. Take road north along west side of Jatibonico River.	37.5
Paso de Jobosí. Continue north. Cross river.	40.0
La Jura (one house). Cross river.	42.0
La Limón Cidra (one house).	42.5
Boca Chica.	44.0
Cross Arroyos Jatibonico del Sur and Manacas. Road becomes a trail. Pass through a gate in stone wall.	46.5
Cross Jatibonico River and enter La Jagua. Still go north.	48.0
Jobosí. Crosses river Jatibonico del Norte; ascends.	51.0
Turns northwest (another road runs northeast to Bocalle); woods; descends.	52.0
Fernandez (one house). Tobacco.	54.0
Palmarito; ascends; woods. (Another road branches west to Jobo Rosado.)	56.0
Agua de Carrijo (one house); road turns west; woods.	56.5
Ojo de Agua.	58.0
	59.0

Miles from
Pojabo.

60.0	Sitio Nuevo; cane and tobacco.
63.0	Jobo Rosado; crosses plantation railroad. Go west.
64.0	Manacal; crosses stream (deep cut).
66.0	Meneses; road turns north.
69.0	Vigre.
70.0	Valdez (one house).
72.0	Enters Yaguajay.

ROAD No. 7.

GÜINÍA DE MIRANDA—SOPIMPA—JÍQUIMAS—BAEZ—GUARACABULLA—SANTA CLARITA—CAMAJUANÍ—VEGA DE PALMA—LAS VUELTAS—SAGUA LA CHICA—PLAYA JUAN FRANCISCO.

General direction: N. Distance: 71 miles.

IN GENERAL.

1. Güinía de Miranda to Jíquimas.—A rough trail through hills, crossing many small streams.

2. Jíquimas to Guaracabulla.—This is a good dirt road and is passable for army transportation in dry season. The grade at the arroyo north of Plata is rather steep, but could be passed without difficulty by doubling up the team. This is the telegraph road to Trinidad.

3. Guaracabulla to Camajuaní.—A good, unimproved dirt road all the way about 20 feet wide and passable for all arms. From Santa Clarita to Sabana hilly, though not too steep for army wagons or artillery. Lomas de Santa Fé continue along left of road all the way from Santa Clarita.

4. Camajuaní to Las Vueltas.—A fairly good dirt road passable for bull carts in dry season. The road passes through a fertile and well cultivated country; mostly tobacco.

5. Las Vueltas to Playa Juan Francisco.—Macadam road for 0.5 mile out of Las Vueltas; the rest, dirt road, poor in places in the dry season, but passable for bull carts and very light loaded wagons. During heavy rains no wheeled transportation could get through.

IN DETAIL.

Miles from Güinía de Miranda.	Leave Güinía de Miranda on trail southeast. Cross Río Prados.
2.0	Cross small stream.
3.0	Cross Río Agabama at Paso de Escobar.
4.5	Sopimpa de Esquerria.
5.5	Trail north to fincas Puriales, Cienfuegos, and La Boca del Indio.

Miles from Güinfa
de Miranda.

Cross stream (Arroyo Cayaguani).	7.0
Jiquimas. Take road north.	8.0
Cross Río Sipiabo.	9.0
Cross Río Cangrejo.	11.5
Fomento. Go north.	12.0
A road runs east.	14.0
Cross branch of Río Guaracabulla.	15.5
Cross another branch same stream.	17.0
Callejón de Baez. Loma de Baez to the west.	19.5
Cemetery on left.	20.5
Finca Caunbie on left.	20.7
Río de Baez (Arroyo de García).	21.0
Pass stock corral (Hacienda Hernando Alonso).	22.0
Guaracabulla.	23.0
Crossroads. Santa Clara-Guaracabulla road (with telegraph line) joins.	23.2
Trail to northwest to Descanso.	24.5
Road crosses Lomas de Descanso; steep at places.	26.0
A road runs northwest to Barrabas and Los Monos.	29.2
Crossroads. A road to east and south joins main road.	29.5
Grade steep here.	
Plata. Tienda Caicají.	30.0
Cross Cuba Company Railroad.	30.5
Cross railroad running northwest.	31.0
Cross Río Jagüelles.	32.0
Santa Clarita. Go northwest.	32.7
Cross Río Camarones.	33.7
Cross a trail running northeast to Prudencia and Santa Fé sugar company's lands.	34.7
La Yagua. Lomas de Santa Fé to the west.	35.0
Cross Río Camajuaní, 15 feet wide and 3 inches deep, gravel bottom, high banks; camp site along stream.	35.2
Cross arroyo running northwest.	35.3
Camajuaní. The road leaves Camajuaní from the northeastern corner of town and runs northeast through cultivated land on both sides.	36.0
Road crosses direct Camajuaní-Las Vueltas road.	36.5
Road turns northeast.	38.0
Road straight ahead, direct route to Las Vueltas.	38.7
Road to right to Las Vueltas via Vega de Palma.	
Road crosses railroad.	39.0
Vega de Palma. Road turns north.	39.2
Crossroads left and right.	40.0
Cross spur from main Camajuaní-Las Vueltas road.	40.2

Miles from Güinfa
de Miranda.

- Las Vueltas. Road continues north. Road leaves
- 41.0** Las Vueltas from the north, continuing in a general northerly direction. Many farmhouses and fields of corn on left. Low range of hills commanding road at 1,000 yards range on left.
- 43.5** Passes through Aguada de Moya. Well water of good quality. Road continues same general direction to Muchita. Well water, good quality.
- 45.5** At Muchita a road runs west to Encrucijada. The road turns slightly northeast, gradually ascending; becomes rocky, turns northwest over low hill through section known as Pedrera.
- 46.0** A road runs south to Charco Hondo. Road continues through light brush and woods, descends the hill, becoming very rocky.
- 46.5** Road becomes muddy, necessary to take a trail through woods to left, striking road again at what was formerly Hato Viejo. No houses. Cattle ranch, one house, between old site and Pedrera.
- 47.5** One road turns east through the woods for 0.7 mile, then turns gradually to the north, continuing through the woods for 7 miles. Strikes south bank of Río Sagua la Chica and finca Ruiz (or Yerba Bruja); continues north, following general direction of river, leaving open pasture land to the right, rejoins the other road from Hato Viejo. Another road continues in a northwestern direction through the woods to Vega Redonda. A few scattered houses in good farming district. River water. Road crosses to west side of Sagua la Chica River at Paso Vega Redonda; 2.5 feet of water, gravel bottom, greatest grade on banks 4 per cent.
- 53.0** Road continues along west bank of the river, northerly direction, passes through Paragua; one store and a few scattered thatched shacks along the bank of the river. River water used.
- 53.5** Road turns west to Encrucijada. The road continues in northerly direction through good corn country, gradually turns to the northeast, passes through San Lázaro del Embarcadero; one store and a few scattered shacks; river water used.
- 58.0** One road continues north to El Santo. Another road turns to the north, crossing the Sagua la Chica River at Paso Largo (Saltadero), 2.7 feet water, gravel bottom, eastern bank steep and muddy. Would be difficult for

anything but light wheeled transportation. Road enters finca Ruiz (Yerba Bruja); joins road through the finca from Hato Viejo, continues in a northerly direction through Sagua la Chica; thence northeast through woods to Playa Juan Francisco. Miles from Güinfa de Miranda.
71.0

ROAD No. 8.

TUNAS DE ZAZA (EMBARCADERO DE ALGODONAR)—LA ROSA—PALMAREJO—CARACUSEY—PITAJONES—SAN AMBROSIO—GAVILANES—BUENOS AIRES—SANCTI SPIRITUS.

General direction: N. Distance: 62.5 miles.

IN GENERAL.

1. Tunas de Zaza to Caracusey.—This is the best road to take in the rainy season from Tunas de Zaza to Caracusey. However, even this route may not be practicable on account of the depth of water at the Banao and Higuanajo rivers. This is the best drained road, through slightly rolling country. Not practicable for wagons, but could be made so.

2. Caracusey to Sancti Spiritus.—From Caracusey—Palmarejo road to place known as Pitajones is a very good cart road through a rolling, partially open and partially cultivated country. From here to the Caracusey River it goes through dense woods, and the main road is at several places hardly distinguishable from the numerous local lumber trails. From Caracusey River (Gavilanes), to Buenos Aires, the road is through a jungle all the way; trail is dim in places, but can be followed all the way in daytime; it is slow traveling for men and animals, necessitating many risks on account of the steep grades. From Buenos Aires south to Sancti Spiritus road it is a good cart trail in dry season, but it would be impassable for all arms very early in wet season.

IN DETAIL.

Road leaves Tunas de Zaza at northern end of town by the railway trestle. This bridge is about 60 feet between abutments and the diagonal bracing is covered with heavy boards; would be very difficult to get wagons across unless bridge was widened and another layer of planks put on. There is no other way to leave the town except by water.

Trail from here follows railroad for 2.5 miles, where it goes to east of railroad and follows river for 1 mile. Large lagoon on east of road at this point. Miles from Tunas de Zaza.
2.5
6.0

Miles from
Tunas de Zaza.

- Road follows old river bed to an old, well established, but poorly marked highway, which it follows north for a mile to Jipiros. Jipiros is 0.2 mile south of the Tunas and Sancti Spiritus Railroad. A cart road connects the town with the railroad. A better route for a dismounted command in any season, or for a mounted command if it has the necessary lumber to cover a bridge similar to the one at Tunas de Zaza, is to follow the railroad track to the crossing near Jipiros. At this crossing is a good camp site for a regiment or more of mounted troops. Water can be had from an elevated tank and windmill on north side of track 300 yards east of crossing. This water is from a well. The Arroyo Salado is 0.5 mile farther and its water is fresh and good. Zaza River is brackish. From the road crossing on railroad the route mentioned follows a good cart road north to the main Zaza-San Pedro road, 1 mile north. At that crossroad it takes the left-hand road westward.
- Road forks; the left hand and plainest trail is the one to follow for 2 miles, being the Zaza-San Pedro road. Here you take the trail going northwest to Corojo, 1 mile distant, which is a small place of only four shacks.
- One and one-half miles north of Corojo there is a crossroad. The main road goes to the northeast to La Herradura. Not plainly marked is a cart trail leading to the northwest, which is the one to take.
- The Pojabo sugar mill. Río Pojabo 300 yards distant. Road leaves mill through gate at southwest corner of mill, then west 200 yards to another gate, and then through the lane north for 300 yards, where it crosses the Pojabo River. Road then follows up the stream for 0.3 mile and crosses again just before the stream forks.
- Road then runs west for 0.2 mile to cross roads. Left branch is a dim trail southwest to Maizal. Road leads west for 200 yards from here, where it apparently loses itself in an unfenced field, but if you keep on north for 0.5 mile into another old field, the road is easily taken up again, and is then a plain trail all the way to Pomares, 9 miles distant. On this stretch two small neighborhood trails lead to right, but are of no importance. The last old field mentioned seems to be the locality known as La Rosa, north of which is Loma la Rosa. From La Rosa to the Higuanojo River a distance of 6 miles, the country is rolling, well drained, and the first part is heavily wooded. There are no streams of any import-

ance, and the section seems to be poorly watered. Higuanojo River is easy to cross in dry season but it is doubtful if it could be crossed in rainy season. Banks are about 25 feet high and about 100 yards apart. Indication of 25 feet of water in past freshets. Current is rapid and water in dry season is about 2 feet deep and 75 feet wide. No ordinary bridge pier could stand against this current in high water. From the Higuanojo River to Río Hondo it is 1.2 miles over high, rolling, and well drained country. Pomares is a scattered settlement. From here a cart road leads north in the direction of Cuchillas and another leads southeast toward Maizal.

Miles from
Tunas de Zaza.

Remains of a combination blockhouse and church here, 28.5 large enough to accommodate a squad. From Pomares to Palmarejo (3 miles) road runs between stone wall on left and hills on right. Palmarejo is off the main road about 0.5 mile. It consists of the ruins of an old sugar mill and buildings. On the stream between this place and the main road is a good camp site for a regiment. Wood and water in vicinity. Palmarejo is an estate of about 3,000 acres, nearly all fenced and covered with fine grass. From Palmarejo the road is improved for about 2 miles to end of this estate, where it passes through 30.5 a gate in a lane. Along this section of road a combination stone wall and wire fence runs along south side of road, and road is commanded by parallel hills on north side.

One mile farther two small streams are crossed about 31.5 0.2 mile apart. These are of no importance, but boggy and difficult to get by at all times. It would be comparatively easy to bridge them, but timbers would have to be brought about 1 mile. Trestle bridges 10 feet high (in the clear) would be sufficient, but each should be nearly 100 feet long.

One and one-half miles farther on an important cart 33.0 trail leads to Pitajones (not a town, but the name of a general locality). Where this road leaves main road there are large, conspicuous bamboo hedges on either side of road, three shacks, a gate across lane, and a stone fence facing it from northwest.

One mile farther on the road enters Caracusey from the 34.0 west. Go 1 mile east of Caracusey on the Caracusey-Palmarejo road, which point is marked by a gate across road and a shack on either side, and where an old Spanish

Miles from
Tunas de Zaza.

- trail came into this road direct from the old Spanish barracks at Guáimaro. This road begins as a dim trail, following a stone fence for 200 yards, and crosses a small stream in a defile easily enfiladed from east and west.
- 35.5** Traverse rolling and hilly country to Quemado, passing through several gates. Two or three small, unimportant local trails lead off to the left. At Quemado is a small stream with water sufficient for a troop. A cart road leads off to the north from here, and another trail southeast to Cuchillas and Pomares. From Quemado the road runs through partially cultivated country and well-
- 39.0** wooded country, gradually rising until the Río Unimazo is crossed; from here the road runs through old abandoned fields to Pitajones. From here the road runs
- 40.5** through very heavy timber land, well watered. There are several local lumber roads branching off to the west along this section. There is a large cave in high hills on right; the opening is near road, about 2.5 miles north of Pitajones.
- 44.5** Road forks. The one to the west is the cart road to San Francisco. The one to the right is the one under consideration and is a mere pony trail.
- 45.5** Where the trail leaves the Río Caracusey there is a good rock-bottom crossing, but this is an important river, draining a large territory and subject to large and sudden rises, and it would be hardly possible to cross it during rainy season. On east side of stream at this point is a good camp site for one troop; plenty of wood, water, and grass. On west side 0.5 mile downstream there is also a good camp site for a squadron. This trail does not cross the Río Caracusey at this point, but turns back east up the course of the Arroyo San Ambrosio through the
- 47.2** vegas of Llanadas and San Ambrosio, and then climbs by zigzags a high hill and runs along the southern slope of another to the Arroyo de la Ciega. This crossing is of no importance in the dry season except as a dangerous defile to be watched, as very little water runs in the stream; however, the drop into the valley on the right is perpendicular for about 200 feet, and a rise in this stream would make the crossing extremely dangerous. There seems to be no other way in the immediate vicinity to pass this point. A span of 40 feet would be necessary to bridge this.
- 48.2** Immediately after leaving the vega of Ciegos de Ponciano there is a good camp site for two troops. The

trail by zigzags then mounts another high hill to a bald point marked 2,000 on map, from which on a clear day both the Caribbean Sea and the Atlantic Ocean can be seen; also the towns of Trinidad, Caracusey, San Pedro, Zaza, Tunas de Zaza, and the great stretch of low country to the south. From here the trail drops down very long hill. Miles from
Tunas de Zaza.
50.0

Gavilanes, which now consists of one shack. From Gavilanes a rough trail leads northwest to Manacas. The trail in question leads southeast from Gavilanes up the course of the Caracusey to its headwaters, and then by zigzags mounts a high ridge and descends to the source of the Río Manacas, and follows down that to Buenos Aires. At this place is located the electric-light plant that supplies the town of Sancti Spiritus. Below the electric-light plant about 1 mile is a good camp site for a squadron. This place is well hidden from the surrounding country. From Buenos Aires trail becomes a cart road, passing over and along small ridge about 1 mile to forks of road. Here one branch leads north, eventually to Sancti Spiritus. Road then leads south, via Sierra and the finca Rafael Rogi (from the latter place a telegraph line runs to Sancti Spiritus) to the main road from Sancti Spiritus. After leaving Buenos Aires this road crosses the Río Manacas twice. Both places probably fordable at all seasons. Good camp site for regiment of cavalry between Sierra and Cacahual. 52.0
59.0
59.5
62.5

ROAD No. 9.

CIENFUEGOS—PALMIRA—CRUCES—RANCHUELO—ESPERANZA—SAN
DIEGO—JICOTEA—SANTO DOMINGO.

General direction: NE. Distance: 56.3 miles.

NOTE.—During 1908 a metaled road was constructed connecting Cienfuegos and Rodas.

IN GENERAL.

1. Cienfuegos to Palmira.—A bull-cart road running through cane fields and open country suitable for grazing.
2. Palmira to Cruces.—Road follows railroad. Suitable for bull carts only. Two fords.
3. Cruces to Ranchuelo.—Passable for wagons in dry season only. No grades.
4. Ranchuelo to Esperanza.—A dirt road in bad condition, 30 feet wide.

5. Esperanza to San Diego.—A bull-cart road, suitable for travel in dry season only.

6. San Diego to Jicotea.—Road 20 to 30 feet wide; roadbed rocky for first 3.5 miles; remainder of distance soft. Impassable for carts or artillery on account of steep hill 2 miles from Jicotea. Passable for cavalry and infantry.

7. Jicotea to Santo Domingo.—Along railroad track. Roadbed soft, grade level; passable for all arms and carts in dry season. Río Sagua probably impassable in rainy season.

Miles from Cien-
fuegos.

IN DETAIL.

- 1.0 Leaving Cienfuegos, follows Manacas road, turning to
- 2.5 north on a bull-cart road passing through cane fields, turns east for 0.5 mile, and then turns north, continuing through grazing land and palmetto groves.
- 6.5 Crossing small narrow-gauge road.
- 8.0 Enters Palmira. The road then follows the railroad from Palmira to Camarones station, lying on the east side. Just before reaching Camarones station the road crosses to the west side of the railroad track and parallels it into Cruces. There are two fords between Palmira and Camarones station which would be difficult in the wet season. They are rather poor, and are passable only by infantry, cavalry, and native ox carts.
- 18.5 Cruces. Road leaves Cruces, running northeast. It is 30 feet wide and in good condition, passable for wagons in dry season. Country to north open. Cane growing on south side. A road runs northeast to central Dos Hermanas. A road branches south to central San Francisco. Cross two small streams, which can be passed by wagons in dry season.
- 20.5 Trail joins main road from Esperanza to Cruces, which from this point to Cruces is in good condition, except for two crossings of streams, which can be repaired.
- 22.5 A trail runs to central Santa Catalina, which is impassable for wagons.
- 23.5 Angelita (formerly Argudin).
- 25.0 Trail leads southwest; impassable for wagons; cane to south; open to north; trail good.
- 25.3 Trail runs northwest to central Santa María, crossing small marsh over iron-rail bridge.
- 26.0 Road passes through cane fields. Passable for wagons in dry season, and crosses private railroad from Santa María southeast to main line.
- 27.0 Cross private railway northwest to colonia Santa Rosalía. Trail runs east.

Cross small stream 20 feet wide and 2 feet deep; steep banks; fair crossing.	Miles from Cienfuegos. 27.2
Ranchuelo.	28.0
Road leads north from Ranchuelo, 30 feet wide; bad condition; wire fences on both sides. Road impassable for wagons. Cultivated land on both sides—principally cane.	29.0
Road leads north of east; wire fences both sides; road bad; road 30 feet wide.	29.2
Road leads north to Cruces road; road bad, 15 feet wide; hedges and fences both sides. Impassable for wagons.	30.0
This is the road leading to Esperanza to the northeast and to Cruces to the west. Follow road to the east; road bad. Wire fences both sides; road 30 feet wide, impassable for wagons. Country to north of road open; excellent grazing, many cattle seen here. Road crosses small stream; crossing very bad. Large iron pipe flattened out, used for bridge; part of distance horses can pass over same. If road can be used, it goes to Esperanza. It is in very bad condition.	30.8
Trail leads north through farm. Keys to gates can be procured at house north of trail. Trail good; crosses small stream about 0.2 miles from house; crossing good; excellent camp site here (two brigades); good watering place (twelve horses at a time); wood scarce. In touch with railroad entire distance. Small frame building known as station, but not in use at present. Cane to east of road.	31.8
Trail leads to northeast and north to colonia Lola; substantial building.	32.8
Trail leads to northeast to main road from Esperanza to Ranchuelo. Road continues northeast to Cruces road; crosses Río Sagua la Grande about 0.2 mile from colonia Lola; banks steep, current swift, 25 feet wide, 6 inches to 3 feet deep. Crossing good at present; good watering place (troop). Good camp site (two squadrons). Stream subject to sudden freshets and impassable in rainy season. Road bad, 30 feet wide; wire fences both sides. Impassable for wagons. Iron suspension bridge from 80 to 100 feet long can be seen short distance upstream.	33.8
Road leads north of east. Road bad; wire fences. This is also the Esperanza-Cruces road. Crosses railroad track to the east and back again to the west side. Railroad bridge here 60 feet long; concrete bases and two	34.6

Miles from Cien-
fuegos.

- concrete piers. Railroad, standard gauge, Esperanza to Cienfuegos. Telegraph lines along track. Railroad has many wooden culverts; cultivated land on both sides, chiefly cane.
- 35.6** Road leads northeast to Esperanza; fairly good condition; impassable for wagons. Leave Esperanza, going north on a wagon road.
- 36.6** Cross U. H. R. R. Cross branch of Río Sagua la Grande.
- 38.0** A bull-cart road running east to Cuatro Caminos.
- 40.0** Bull-cart road west.
- 43.0** San Diego. Leave San Diego on bull-cart road, running southwest. Pass cemetery with high brick wall. Open country with some brush on both sides of the road. Cross small stream.
- 44.8** La Tenaza. Ascend steep hill. Old blockhouse on hilltop. This is one of a range of hills extending northwest and southeast.
- 47.3** Road leads down the hill; easy grade. Cross small swamp.
- 48.0** Jicotea. Road runs northwest from Jicotea; open country on both sides.
- 48.8** Road runs southwest, strikes spur of main railroad line.
- 49.1** Road runs northwest to main railroad line running from Jicotea to Santo Domingo. Kilometer post No. 141 at crossing.
- 49.6** Road follows railroad to La Criolla. A brick store and dwelling at this point; road leading south to San Bartolomé and north to Santo Domingo crosses here. Cane on both sides of road.
- 52.1** Road runs northwest to ingenio María Antonia. Cane on both sides of road.
- 53.3** Road runs southwest to Río Sagua. Old brick blockhouse just east of crossing of river. It is practically worthless. Crossing good in dry season. River is 6 inches deep and about 30 feet wide, probably impassable in rainy season; steep banks and sudden rise. Open country.
- 53.8** Road continues southwest; open country; strikes road leading northwest to Santo Domingo and south to San Marcos and Jicotea.
- 54.4** Road runs northwest to railroad; open country.
- 55.1** Road runs northwest to Santo Domingo. Open country and cane fields both sides of road.
- 56.3**

ROAD No. 10.

JOBOSÍ—ITABO—SANTO TOMÁS—LA LUISA—BUENA VISTA—BARTOLOMÉ—REMEDIOS—GINAGUAYABO.

General direction: NW. Distance: 44 miles.

IN GENERAL.

1. Jobosí to Itabo.—Dirt road, fairly level, passable for wagons in dry season for 3 miles from Las Nuevas de Jobosí, then impassable for 3 miles, then passable to Itabo. Passable for bull carts in dry season only.

2. Itabo to Santo Tomás.—Bull cart road, difficult for wagons; country rolling.

3. Santo Tomás to Buena Vista.—Horse trail; country hilly; wooded as far as La Luisa.

4. Buena Vista to Remedios.—A dirt road, rocky. Impassable for wagons in rainy season.

5. Remedios to Ginaguayabo.—Fairly good dirt road, but impassable in rainy season for wagons.

IN DETAIL.

Leave Jobosí going northwest. Grazing country; crosses stream.	Miles from Jobosí.
Enters Jobosí Nuevas.	3.0
Enters Las Nuevas de Jobosí, Regaderos de Palmaritos (a chain of lakes), and Sierra de Matahambre to the north.	5.0
Woods; trail bad for 3 miles.	8.0
Turns southwest; open country.	11.0
Itabo. Leave Itabo, going west.	13.0
Vega de Guanao. Cross small stream, Río Caunao.	15.0
José Manuel Dergua. Cross small streams.	16.0
Piedra.	16.5
Hermanito. A road south to Limpio de Pedro de Barba.	17.0
La Liebe.	18.0
Cangrejo; extends 2 miles along road.	19.0
Santo Tomás. Road descends.	20.0
Alicante. Road descends.	22.0
Caraballo (one house).	24.0
La Luisa.	25.0
Mamey. Crosses plantation railroad.	26.0
Palason. Crosses stream, turns west.	27.2
Crosses railroad.	27.7
Claro, stream.	28.2

Miles from
Jocosi.

- 31.0 Enters Buena Vista. Leave Buena Vista, going northwest down hill. Woods to right, grass and cane to the left, country rolling. Cross narrow-gauge railroad (Cuban Central).
- 35.0 Viñas. Cross Viñas River. Cross Río Bartolomé, small stream. Country rolling.
- 37.0 Bartolomé. Road rocky. Go north.
- 41.0 Remedios. Leave Remedios, going north.
- 42.0 Bare hill to right.
- 43.0 Wooded hill to right and near road. Country planted in cane and grass.
- 44.0 Ginaguayabo.

ROAD No. 11.

VIJABO LAS DAMAS—REMATÉ—ITABO—CAUNAO—PEDRO DE
BARBA—SAN FELIPE—REMATÉ—ZULUETA.

General direction: NW. Distance: 43 miles.

IN GENERAL.

1. Vijabo to Itabo.—Dirt road. Passable for bull carts to a point 2 miles south of Remate, then a horse trail.
2. Itabo to Pedro de Barba.—A dirt bull-cart road. Country a rolling plateau.

IN DETAIL.

Miles from
Vijabo.

- 2.0 Leave Vijabo Las Damas. One mile north the road turns and enters Manaca de Cantera. Road ascends; woods; crosses stream; branch road to the right also runs to Remate.
- 5.0 Enters San Juan; crosses Arroyo Grande.
- 8.0 Enters Remate. Turns east for a mile, then north.
- 11.0 Enters Magesa.
- 15.0 Enters Jicotea. Turns northwest.
- 17.0 Enters Itabo. After leaving Remate, road passes over two small hills favorable for ambush. Branch road to Hermanito and towns southwest. Crosses Caunao River.
- 19.0 Turns northwest.
- 21.0 Enters Caunao. Branch road to Pedro de Barba; turns south then west.
- 22.0 Enters Roman Grecho; trees.
- 24.0 Enters Felipe Martin.

	Miles from Vijabo.
Branch road south to Remate.	25.0
Enters Pedro de Barba.	26.0
Cross Río Caunao.	28.0
Remate.	32.0
Guartón de la Tierra; cross Río Yera.	36.0
San Felipe. Cross stream.	37.0
Cross trail from San Manuel to Corojo.	38.0
Zulueta.	43.0

ROAD No. 12.

CIENFUEGOS—CARIDAD—CAUNAO—CAMARONES—OJO DE AGUA—
CUMANAYAGUA—MANDINGA—BARAJAGUA—VIAJACAS.

General direction: E. Distance: 35.9 miles.

IN GENERAL.

1. Cienfuegos to Caunao.—A good metal road.
 2. Caunao to Camarones.—Suitable only for ox carts or packs.
 3. Camarones to Ojo de Agua.—A dirt road suitable for mounted troops at all times, but very difficult for wheeled transportation at any time. The road is not graded or ditched. Rolling country. Troops with pack animals should use the eastern branch of the road, as the western branch has a very bad approach to the Caunaito River. Little cultivation along the route.

4. Ojo de Agua to Barajagua.—Narrow trail deeply rutted in places; signs of ox carts having passed along it. Fords are very difficult on account of steep banks.

5. Barajagua to Viajacas.—Roads very rough, steep grades, no timber. Impracticable for wheeled transportation.

IN DETAIL.

Leave northeastern point of Cienfuegos and go north-
east over several masonry culverts.

Pass through Caridad. 1.5

Pass over ridge commanding road and town of Caunao 2.0

Caunao. The road from Caunao to Camarones runs 2.5
through Ciego Alonso. No points on the road which
could be considered important. There are some small
creeks and mud holes to cross. No bridges or good fords.
Native ox carts and pack animals the only transportation
which can be used.

Miles from Cien-
fuegos.

- Camarones. Road leaves Camarones by the street in rear (east) of the church. Road runs southeast 110° and passes to the right of an old sugar mill.
- 12.5 Road crosses the Hormiguero-Manaquitas plantation railroad, which runs northeast by southwest at this point.
- 12.7 Continues southeast and crosses the Caunao River, which is about 60 feet wide and 18 inches deep at this season. River shows signs of being several feet deep during heavy rains—probably impassable. Very poor ford for wagons, but good for animals. Clear water with good current. Upon crossing the river a trail running a little west of south leaves the main route. This trail is a short cut and joins the main trail after crossing the Caunaito River, about 1.5 miles farther on. Main road gradually ascends a long hill and turns more to the south and crosses the Caunaito River. This river is about 30 feet wide and 18 inches deep at center; gravel bottom. After crossing the Caunaito the road runs a little west of south and joins the branch trail, which comes from the northwest; 330° . The road turns to the southeast 150° and after crossing two very small streams flowing to the southwest, reaches Ojo de Agua. This part of the trail is over rolling country; a few small fields of sugar cane; good grazing lands. Road is fenced by wire on both sides. As Ojo de Agua is neared several small houses are found along the road. The branch trail which leaves the main route at the river is absolutely impassable for wagons. It goes around the hill near the river and at no time is it more than 0.5 mile to the west of the main route, and might be used by a few horsemen with a view of intercepting persons traveling on the main route. A little time would be lost at the ford, which has a bad approach, but it is the nearer and quicker route. Leave town at eastern end of road running southeasterly; goes up a slight grade and down again into a broad, rolling country partially cultivated; few palm trees scattered about on left of trail.
- 14.3
- 14.5
- 15.7
- 16.7 Road changes direction slightly to the north. Road leaves this point running west to join Ojo de Agua-Dolores road. Road continues through partially cultivated country and ascends gradually a ridge of hills.
- 17.7 Passing this ridge, trail descends and crosses small stream of clear water, Río Viamones; surrounding country partially cultivated.
- 18.7 Leaving stream, trail goes through rolling pasture land to the ford at the Río Arimao.

Crossing the river, trail enters Cumanayagua; country partially cultivated.	Miles from Cienfuegos. 19.7
From Cumanayagua the trail turns northeast and crosses the Río Hanabanilla.	20.0
After crossing, trail follows river bank for 0.5 mile.	21.2
Trail leaves river bank and, passing through pasture land, comes to the Río Arimao.	21.7
Crossing the river, the trail ascends gradually to Mandinga.	23.7
Leaving Mandinga in a northeasterly direction, the trail goes through rolling country, crosses three small streams and several deep gullies, passing near a store called Carolina.	24.2
Just beyond Carolina a trail goes north to Castellón. Trail continues through pasture land, crossing two small streams.	27.2
Trail turns almost due south and enters Jíbaro.	29.2
Leaving Jíbaro, going southwest, the trail crosses the Río Arimao; surrounding country partially cultivated and part pasture land.	29.7
Leaving the river, trail goes through rolling country, crosses a small stream, and enters Barajagua at eastern extremity.	30.7
Barajagua. Road to the west to Cumanayagua, east to Hoyo Manicaragua, and northeast to Viajacas. Follow road northeast. Cross Arimao River, ford sandy but banks too steep for loaded wagons. River not fordable in rainy season.	31.7
Road to the left to Lomas Grande.	31.9
Road to the right to Hoyo Manicaragua.	32.2
Road forks northwest to Potrerillo; store in forks of road; turns slightly to the east for 0.2 mile and strikes road to the left, forming triangle.	32.4
Road forks on top of the hill. Take road nearly due north down steep hill.	33.2
Cross small stream and turn slightly to the east, ascending the mountain.	33.4
Road forks northwest, turn nearly due east.	34.4
Strike main Santa Clara and Manicaragua road and turn north; descend mountain, leaving it on your left.	34.9
Viajacas. Small stream running along right of road.	35.9

ROAD No. 13.

SAGUA LA GRANDE—CHINCHILLA—QUEMADO DE GÜINES—LOMA
BLANCA—JIQUEIABO—ÁLVAREZ.

General direction: SW. Distance: 39.7 miles.

IN GENERAL.

1. Sagua la Grande to Quemado de Güines.—A road suitable for all wheeled transportation as far as Chinchilla and from there on to Quemado. The road is bad, especially in rainy season.

2. Quemado de Güines to Álvarez.—A fair dirt road during the dry season from Quemado de Güines to Zacatecas, and from Mamey to Álvarez. From present appearances rarely used as bull-cart road. Best adapted for pack trains on account of the numerous grades, several poorly constructed bridges, and creeks it is necessary to cross. Country level and not very much cultivated. No good camp sites.

IN DETAIL.

Miles from Sagua
la Grande.

The road from Sagua la Grande to Chinchilla for the first 2 miles is macadam, well made, about 15 feet wide, good drainage on both sides, and is practicable for all kinds of wheeled transportation. Its present condition is excellent and rain would not have any bad effect on it. On both sides of the road there is plenty of material, such as stones, brushwood, and timber, for repairing the road. There are three small, unimportant culverts; one at the end of the macadam, 2 miles from Sagua la Grande, is about 20 feet long, height above water 2 feet, circumference about $2\frac{1}{2}$ feet, made of stone and cement, and condition good. From this point the road is made by traffic; present condition bad on account of heavy rains. There are several very bad parts, the worst being opposite the stone quarry, which is 2.7 miles from Sagua la Grande. The bad part is about 50 feet in length, and it is necessary to make a detour close to the quarry. Plenty of materials for repair all along the road. About 1 mile from the stone quarry there is a defile, length about 50 feet, and just wide enough for escort wagons to pass, and more or less boulders in the road. The walls of the defile are about 8 or 10 feet high. About 400 yards before entering Chinchilla there is a good camping ground of about 2.5 acres to the left of the road. The ground is sloping, good drinking water can be obtained from a deep well, and there is plenty of wood and good grazing close at hand.

As Chinchilla is approached the country becomes broken and there is but little cultivation of the soil. In dry weather the road is in good condition. There are no grades of any importance and no bridges. Part of the road is fenced with barbed wire at intervals. At Chinchilla the road diverges, both, however, leading into Caguagua. The left one was taken as being reported in the best condition. South of Chinchilla is Loma Jumagua. About 100 yards from Chinchilla the road assumes a slight grade, rough and more or less covered with boulders. This only obtains for a few hundred yards, however, when it becomes good traveling. Plenty of material close at hand for repair of road. Cultivation of sugar cane, corn, and a few vegetables noted on leaving Chinchilla. About a mile from Chinchilla the road diverges at La Trocha. At this point are the foundations of an old Spanish blockhouse. About 500 yards farther on there is a slight grade, but the road is in good condition, the soil being a mixture of red clay and gravel. About a mile from the tienda at La Trocha the road again diverges, both roads, however, leading into Caguagua. Trail to the left taken, the one to the right being reported in bad condition. From this point to within 1.2 miles of Quemado de Güines the road is more or less badly cut up and has steep grades.

Miles from Sagua
la Grande.

Quemado de Güines. Take calle Delgado, which runs practically west from Quemado de Güines. Country level, with but little cultivation. 15.0

Passes through the ingenio San Isidro and bears to the southwest. 16.7

Underbrush to the right of road. One shack and some cane to left. 17.7

Crosses road leading to San José and Manacas. 18.0

Barbed-wire fence to right. One shack to right. Scrub palms and brushwood to the right and left. Road rather marshy for a short distance. 18.5

Bears south for short distance and crosses a small creek called Arroyo Regla, and thence bears to the west. 19.0

Bears to the southwest. Very thick with scrub palms to the right and left of road. 19.5

Barbed-wire fence and heavy underbrush to the right; some cane to left. 20.7

Bears to the south and crosses the Río Zacatecas. Very thick woods to the right and left. 21.2

Miles from Sagua
la Grande.

- Bears southwest. Much underbrush and scrub palms to the right and left.
- 22.2 Underbrush to right; barbed-wire fence and cane to left.
- 23.5 Passes through Loma Blanca and turns south, following alongside railroad track.
- 24.7 Bears to southwest. Woods to the right and left of road.
- 25.5 Crosses small creek. Barbed-wire fence to the right. Underbrush to right and left.
- 25.7 Same general country.
- 26.2 Passes stock pen to right. Sparse woods to right and left.
- 27.0 Passes the village of Mamey to the right and turns to the south.
- 27.5 Bears to southwest. Barbed-wire fence to right; thick with scrub palms to right and left. Road in good condition.
- 28.0 Very thick with scrub palms to the right and left of road. Good natural roadbed.
- 30.7 Underbrush and palms sparse; some pasture land to right and left of road.
- 31.0 Bears to north and west.
- 31.2 Passes through Jiquiabo. Leaving this village the road runs northwest for short distance and thence west for about 100 yards and crosses a small creek, Arroyo Jiquiabo. Woods to the right and left.
- 31.7 Crosses another small creek, Arroyo de la Cruz.
- 32.0 Bears to the south and west.
- 32.2 Thick with palms and underbrush to right and left; barbed-wire fence to the left.
- 33.5 Same; road bearing more toward the west.
- 34.7 Crosses a small creek and bears to northwest for short distance and thence west. Heavy woods to right and left.
- 35.5 Very thick with palms right and left.
- 36.7 Bears again to northwest. Barbed-wire fence to right and left.
- 37.0 Turns to west. Palms becoming scarce. Some cattle noted.
- 37.2 Same country. One shack to right of road.
- 38.0 Bears to the northwest.
- 39.0 Álvarez.

ROAD No. 14.

RODAS—JABACOA—ESLES (VENERO SAN JUAN)—AGUADA DE PASAJEROS—JAGÜEY CHICO—AMARILLAS.

General direction: NW. Distance: 30.5 miles.

IN GENERAL.

Suitable for pack transportation only.

IN DETAIL.

	Miles from Rodas.
Leave Rodas over road running northwest, passing cemetery to the right. Cross railroad at the 122-kilometer post and continue northwest.	
Cross narrow-gauge road. Continue northwest. Cross railroad and ford Jabacoa River.	2.2
Jabacoa to the left 0.1 mile distant. Country generally open. Pass north of Jabacoa and take a more westerly direction, passing through fields. Good dirt road.	4.0
Pass road to Pozo del Capitán to the left. Houses to the right.	10.0
Pass road to Carillo to the left. Continue 1 mile.	11.5
Turn west and thence into Esles (Venero San Juan). Leave Esles, directly south. Country open.	14.5
Pass through cane fields. Good dirt road.	16.0
Pass through savanna and woods, and take a dirt road running west through savanna and cane fields. Railroad in sight. Continue west to Aguada. Turn south 300 yards and then turn west on a highway through cane fields.	20.0
Pass sugar mill 0.5 mile to the south. Road continues south into savanna. Turn south.	17.5
Cross railroad track and follow trail into Aguada de Pasajeros. Take road running northwest from town to the west of the railroad track.	20.0
Ford small stream, Arroyo Limones. Pass cane field to the right and enter savanna. (A good dirt road follows the direction of the railroad.)	21.0
Enter Jagüey Chico. Leave Jagüey Chico, going directly west and turn directly to the north and follow railroad 1 mile.	24.0
Turn directly to the right.	25.0
Cross Hanábana River. One-half mile beyond crossing turn northeast at crossroads and continue to the north to Amarillas through cane fields.	26.0
One road running to the right and two to the left. Reach Amarillas.	30.5

ROAD No. 15.

CAIMANERA—ANTÓN RECIO—LOS HONDONES—PONCE—CHARCAS—
ESPERANZA — CIGUATEY — ESPINAL — YAGUARAMAS — ALCALDE
MAYOR—SANTA CLARA—ABREUS.

General direction: NW. to Yaguaramas; NE. to Abreus. Distance: 32.7 miles

IN GENERAL.

1. Caimanera to Yaguaramas.—The road is an ordinary cart road and at times is a camino real. It passes through savanna land, with occasional cane fields. It is suitable for infantry, cavalry, and pack animals, and wheeled transportation could be used during the dry season.

2. Yaguaramas to Abreus.—The road, for part of the way, is a camino real, and at other places an ordinary cart road. It passes through a great deal of uninhabited savanna land, and at times the road is very indistinct. It is passable for infantry and cavalry and pack animals. The country passed through is, as a rule, very flat.

IN DETAIL.

Miles from
Caimanera.

- Leaving Caimanera, the road slopes southwest slightly and the ruts indicate that the road is very muddy during the wet season. The road has a general bearing of west.
- 1.5 It crosses the Cárdenas and Jucaro Railroad and the Juraguá Railroad about 1.5 miles west of Caimanera.
 - 2.2 The road changes its bearing to north, and at this point is within 100 yards of the Cieneguita Railroad. It crosses the U. H. R. R. and also the Juraguá Railroad. Turning westward and then southward, the road once again crosses the railroad.
 - 3.0 Three miles west of Caimanera the road bearing south-southwest crosses the Cieneguita Railroad, and at this point becomes a camino real. It continues south-southwest, passing through Los Hondones, crossing the Juraguá Railroad; enters Ponce.
 - 7.0 At Ponce the road changes direction to the northwest, and when 8 miles west-southwest of Caimanera changes direction to the north and, crossing the Juraguá Railroad, enters the southern outskirts of Charcas. The road then changes its bearing to generally west, and, passing almost parallel to the Juraguá Railroad, crosses it at a point 10 miles west of Caimanera and enters Esperanza.

The road changes its bearing to generally north, and passes through brush and cane fields and crosses a spur of the Juraguá Railroad; enters Ciguathey. Miles from Caimanera. 11.0

The road, passing through cane fields, changes its bearing to northwest and then to southwest. 15.5

At the Alcalde Mayor River are 3 wooden bridges, each about 20 feet long and 10 feet wide and of a single span. They cross the Alcalde Mayor River and two small arroyos of said river. Road proceeds west through cane 0.2 mile and then turns north 0.5 mile through cane, crosses the Cieneguita Railroad and enters Espinal. 14.5 15.2

Leaving Espinal the road runs northwest through open, brushy country for 3.5 miles, where it crosses the Constancia Railroad track and enters Yaguaramas. Road leaves Yaguaramas, going east for 1.7 miles to the junction of the Abreus-Yaguaramas road. It then goes northeast over an open, brushy country to Río Alcalde Mayor. Pass a blockhouse commanding the crossing and cross the river; good ford, rock bottom; good watering place for troop of cavalry. River has a 10-foot rise during heavy rains. The road is now a camino real and runs northeast. 14.7 25.7

Village of Alcalde Mayor. Pass through savanna land, going north, and cross Constancia Railroad at Santa Clara. Follow this railroad northeast. Road becomes indistinct. Cross same railroad again. 26.9

Road passes two low and muddy points of land. 30.7

Pass Jibara. The road runs southeast, then south into Abreus, the last 0.5 mile being a camino real. 31.7

Abreus. 32.7

ROAD No. 16.

ZAZA—HIGUANOJO—SAN PEDRO—PALMAREJO.

General direction: NW. Distance: 24.7 miles.

IN GENERAL.

1. Zaza to San Pedro.—This is a regular line of travel through this section, and during the dry season would be practicable for army wagons if preceded by a squad of pioneers with shovels and axes to make slight repairs at the Tayabacoa River. This road has evidence of having been very important in past times, but at present is used mostly for pony travel, and there are no inhabitants along it except at Higuanajo. It runs through perfectly flat country except

from a point 1 mile west of Higuanojo to San Pedro, which is slightly rolling, well drained, and for the greater part hard and gravelly.

2. San Pedro to Palmarejo.—This road has been an improved road at one time, but is now only used for pony travel for the whole distance. It was probably used to transport the products of the Palmarejo estate to San Pedro and some landing place on the south coast.

IN DETAIL.

Miles from Zaza.

- 1.0 From Zaza main route is north 1 mile and west 2 miles to Arroyo Salado, and 0.3 mile farther on crosses
- 1.7 branch of this stream, into open palm land. One not acquainted with this route is liable to follow a blind trail north, at the sharp angle between the two streams above mentioned. There is another trail between Zaza and the end of the section noted above, and that is through a gate directly in the rear of the station at Zaza, through the pastures, and this road crosses the Salado at a fairly good crossing, but not as good as the two crossings previously noted. The Arroyo Salado is likely to be too high to be crossed without swimming during the entire wet season. During dry season it can be crossed by horses at nearly all points, though the bed of the stream is very boggy at places. After passing hacienda Juan Rodriguez and crossing the Salado, a good cart road runs north and south; the southern end crosses the Tunas and Sancti Spiritus Railroad 1 mile
- 2.7 south and, then becoming a trail, leads south to Tunas de Zaza; 1 mile west of Salado a branch cart trail leads northwest to La Herradura, 3 miles distant through marshy, open country for most of the distance.
- 4.5 Two miles farther west a branch cart road leads northwest to Corajo-Pojabo sugar mill (not running) and Caracusey.
- 5.5 Road crosses Río Banao and reaches Ciego Banao. Stream is smaller here than it is farther up. Crossing is fair and would be too deep to ford in rainy season. This crossing is in dense woods and a bridge could be built of near-by timbers. Bottom is mud but fairly solid. Bed of stream not more than 12 feet below banks.
- 5.7 Branch trail leads south about 2.5 miles into open woods and pasture land.
- 7.7 A cross trail leads northeast to La Herradura and Pojabo and southern end leads to mouth of Río Tayabacoa and hard timber to east of it.

Road crosses Río Tayabacoa. The stream can be used by horses at this point during the dry season. In the approach from the east the road has sunk and trees have blown across it and the sides of cut have fallen in, making this spot impassable for wheeled transportation. The road follows up bed of the stream about 100 yards and the exit on west bank is steep and difficult for horses. West bank is about 15 feet high. East bank is low, and if a bridge were built it would require a long approach from its side. From here road runs through Aroma, a scrubby bush which resembles the Mesquite of the southwest.

Miles from Zaza.

8.5

Cart trail leads south to Guayacane on south coast; a fishing village. 11.0

Cart road leads south to María Elena near the mouth of the Higuanajo River. Small boats can come up the Higuanajo River about 3 miles on account of the slack water. The bed of the river is very narrow but the stream has considerable depth to within about 1 mile of Higuanajo, which consists of two shacks. This stream is an important one. During dry season it is about 30 feet wide and 1 foot deep. Banks are 30 to 40 feet high and 100 yards apart. River probably goes over banks in rainy season. 12.5

Road crosses Higuanajo River, and passes through a locality known as Príncipe. 13.7

Camp site on right of road suitable for a regiment or more. It is upon a well-drained knoll; plenty of wood near; but would have to go to river for water. 14.7

Cross trail runs from Pomares to Zuñiga on an arm of the sea 5 miles south. This crossroad is used for lumbering and there is a small wharf built of logs at which there is at least 15 feet of water; fairly good-sized boats are able to enter. 16.5

At 1 and 2 miles farther west trails are shown, which lead to the southeast. They are unimportant, as the country becomes more open here and one can travel in any direction. 17.5

A neighborhood road leads north. 18.5

Road crosses Río Cañada (Río Yaguaramas). This is an important stream during wet season. During dry season is entirely dry except for one or two small holes. From this stream it is about 300 yards to Spanish barracks at southeast corner of town of San Pedro. Leaves San Pedro at post-office from the center of the north end 19.5

20.0

- Miles from Zaza. of town, follows wire-fenced lane, and bends to west,
20.5 where it strikes the old-established road out of the northwest corner of town (latter now closed).
21.0 Road forks, left branch being a neighborhood road.
22.0 Road forks; right-hand one is neighborhood road; but the one that carts and wagons would have to follow to get to Palmarejo on account of the old main road here becoming fit for horse travel only.
22.5 Road crosses Arroyo Yaguaramas, a small, unimportant stream, easily forded. Ruins of an old stone bridge at this spot, which could be rebuilt easily, as the approaches are still standing; distance between abutments about 30 feet.
22.7 Road passes through gate and follows around a branch of the Yaguaramas, which runs north 0.6 mile.
23.0 Here road takes a general northeasterly direction to Palmarejo, 2 miles distant.
23.5 At about 1 mile from the stream above mentioned the road passes through a set of bars between two hills which command the road completely. This seems to be the entrance to the Palmarejo estate. At this point a road leads east past the road on which is a house that is conspicuous from nearly every direction. This would be an ideal location for an effective signal station, using visual signaling.
24.7 One and one-half miles from the gate and just before reaching Palmarejo the road crosses the Arroyo Cabezada, which can be forded at any season, and bottom is rock laid for wheeled traffic; 400 yards after passing Palmarejo the Arroyo Cuchillas is crossed. There is a good camp site here.

ROAD No. 17.

GÜINÍA DE SOTO (GÜINÍA ABAJO)—SOPIMPA DE ESQUERRA—FOMENTO.

General direction: NE. Distance: 20 miles.

IN GENERAL.

1. Güinía de Soto to Sopimpa.—A foot and horse trail along the right bank of the Agabama (Manatí) River. Hills varying from 150 to 450 feet close to river on both sides and the trail is along the sides of the hills on the right bank, going over the hill or mountain at one point only. Road rocky and rough in places and impassable for wheeled transportation.

2. Sopimpa to Fomento.—A poor trail, sandy in the river bottom and rocky at other places. Suitable for pack trains only.

IN DETAIL.

Starting from the store at Güinía de Soto the road leads a little west of north, following closely the turnings of the river. The road is from 30 to 40 feet above the river except in a few places. On the other side of the river the hills, 100 to 250 feet high, come close to the river. The road rises and falls gradually, following the conformations of the banks.

Miles from
Güinía de Soto.

The road here leaves the river, which makes a short turn to the east, and ascends very rapidly, making a stiff climb to the top of a hill about 450 feet high. It descends again very shortly and rapidly and meets the river again. At this point a foot trail leads into the mountains to Sierra Alta on the other side. The road again follows the windings of the river, always on the right bank.

5.0

Road crosses the Seibabo River, which empties into the Agabama at this point. It is easily fordable.

8.0

Road crosses the river and turns northeast.

9.5

Sopimpa de Esquerria. The road left the river 300 yards north of the crossing, the river turning northwest. The hills on both sides are wooded and nothing can be seen beyond them. There are three or four shacks scattered along the river bank (no town). The importance of this road lies in the fact that it is the main highway between Trinidad, Fomento, and Santa Clara, and there is constant traffic over it on foot and horseback, but not on wheels, as it is but a trail. A telegraph line from Trinidad to Santa Clara, in a very bad state of repair, follows the road, and the proposed railway will also follow this road. Take the right-hand trail leaving Sopimpa; directly south, the left-hand trail with telegraph line goes to Trinidad.

10.0

Descend to Agabama River; trail follows river bed to west.

10.5

Crosses mouth of Arroyo Cayaguani.

11.5

Cross trail which leads from Sopimpa to Güinía to Miranda.

12.0

Vega on crest of east bank called La Boca del Indio. Banks of Agabama River about 150 feet high.

13.7

Two houses on east bank (Palmarito); trail very heavy and sandy.

15.0

Miles from
Güinía de Soto.

- Cross the river and take trail leading over crest of hill.
- 16.0 A third trail which continues to follow the east bank of river is to be avoided. The ford of the river is rocky and bad. River 75 feet across, 18 inches of water, but shows sign of rapid rise.
- 17.0 Road joins trail from Güinía de Miranda to Fomento.
- 19.0 Cross Río Agabama.
- 20.0 Fomento.

ROAD No. 18.

TIBISIAL—COROJO—PLACETAS—SAN PABLO—ZULUETA—BUENA VISTA.

General direction: N. Distance: 22 miles.

IN GENERAL.

1. Tibisial to Placetas.—The road is passable for native carts, is unimproved, and of various widths. The country generally level over which the road passes. About 1 mile beyond Tibisial a road leads off more to the south, and from this road still farther south; trails lead south and finally cross Cuba Central Railroad, and main road leading to Sancti Spiritus. Passable for all arms in dry season, otherwise difficult. No steep grades.

2. Placetas to Buena Vista.—An unimproved dirt road, width about 10 feet where cart road exists. Passable for native carts and all arms except for about 1.5 miles to southwest of San Pablo, which is only a horse trail. Road leads over rolling country, but no steep grades.

IN DETAIL.

Miles from
Tibisial.

- Leave Tibisial, going northwest. Country barren; thin grass and brush. Stone wall south of road.
- 1.5 Hill to north 100 feet high. A road branches to south-east. Pass fair camp site. Cross small stream, running south, crossing good, gravel bottom.
- 2.2 Corojo.
- 4.2 Cross small stream flowing south into Aguacate River; stream 16 feet wide, 10 inches deep, banks 10 feet high, good approaches, bottom muddy, difficult for artillery.
- 4.5 Cross narrow-gauge branch Cuban Central Railroad.
- 6.0 Horse trail crosses road from north and leads south to Máximo on Cuba Central Railroad.
- 8.0 Crossroad leads from northeast at Zaza sugar mill to Placetas del Sur and places west and south.

Two small hills to right, 100 feet high, Loma Ciego Ransoli. Road generally fenced with wire; ground to east cultivated; to west, grass. Miles from
Tibisíal.
8.5

Cross Río Zaza at a point east of the mouth of a branch stream. River 12 feet wide, 8 inches deep; banks low; bottom muddy; ford bad. 8.7

Placetas. Road leaves Placetas from the northeast. 10.0

Trail leads east from road to San José sugar mill. 10.2

Cross trail from southeast to northwest toward San Andrés. From main road to San Andrés on cross trail there is a good cart road; from junction of crossroad to San Pablo a horse trail only. This trail crosses two small branches flowing northwest; good water; low banks; hard bottom; good camp site. 13.2

San Pablo sugar mill. Narrow-gauge railroad runs from this mill southeast to Tacón on main narrow-gauge line. A horse trail leads west to San Andrés and another northeast to Dolores. 14.7

Zulueta. Go east. 18.0

San Agustín sugar mill. This section of the country is nearly all cultivated, except the hills, with sugar cane. Road from this place to Buena Vista leads east by south; about 0.5 mile east on road a ridge of small hills, about 150 feet high, extends nearly 1.5 miles east and west to the south of road. 19.0

Private railroad, belonging to Adela sugar mill, crosses road from northeast and thence to southeast into cane fields. At this point road enters pasture and continues to Buena Vista. 20.5

Buena Vista. 22.0

ROAD No. 19.

TURQUINO—SAN LINO—RODAS—LOS ABREUS—CONSTANCIA—ENCARNACIÓN—TORANSO—LAGUNA.

General direction: S. Distance: 23.5 miles.

IN GENERAL.

1. Turquino to Rodas.—A road suitable for pack animals only.

2. Rodas to Laguna.—During the dry season the road could be used by ox carts, but during the rainy season it would be impassable for vehicles. It is generally level and passes through savanna and cane fields. During the dry season the road is crossed by no streams

from a point 1 mile southeast of Constancia to Laguna, and consequently furnishes no watering places for animals. The road between Rodas and Constancia during the rainy season is exceedingly muddy and almost impassable.

IN DETAIL.

Miles from
Turquino.

- Leave Turquino on a road running southwest. Cross small stream and pass through open fields. Road now runs west.
- 2.5 San Lino.
- 3.0 Pass through open fields.
- 3.8 Pass through Hoyos. Road now runs south. Cross narrow-gauge railroad and cross public railroad at kilometer 122.
- 7.8 Cross public railroad at kilometer 123. Pass cemetery on left.
- 8.0 Rodas. Upon leaving Rodas the road, a camino real, fords a tributary of the Damují River, about 15 feet wide, 1.5 feet deep, rock bottom, good current, and an excellent watering place for one troop of cavalry at a time. During the rainy season this arroyo shows evidences of a 10-foot rise. The road bears slightly south of west. The road changes direction generally south.
- 10.0 Road fords a small arroyo with a rock bottom. The southern bank is very rocky, with a slope of 20° . The road fords a small stream, Río Limón, with a hard bottom, immediately north of Abreus.
- 12.0 Upon entering Abreus the road is roughly paved with stones. The road passes through the main street of Abreus, changes direction to the westward, and passes two very small arroyos which are mere mud holes during the wet season. In the dry season they entirely disappear.
- 12.5 The road changes direction to the south. At this point is a cemetery on the west side.
- 13.5 Wooden bridge over an unfordable arroyo; 15 feet long, single span, and 10 feet wide; serviceable, but in bad condition.
- 13.7 Stone and cement bridge 50 feet long over an arroyo and gorge. The bridge is a solid piece of masonry with a small opening for the passage of the arroyo. In this vicinity the road is very muddy during the wet season. The road changes direction to the southeast at this point.
- 14.5 The road passes through the Constancia central. Constancia could afford a good camping site for 1,000 men. The road changes direction toward the southwest.

Small arroyo which disappears in the dry season. At this point the road as a camino real terminates. The road passes through country covered with grass and with an occasional tree scattered here and there. Miles from Turquino. 15.2

The road passes through Encarnación, which is the site of an old sugar mill. The road continues southwest, passing through savanna until Casa Grande is reached. 16.5

Casa Grande. The road changes direction to the northeast, crossing the Juraguá Railroad and then the Cieneguita Railroad, and again changing direction, again crosses the Cieneguita Railroad, with a bearing toward the south. At this point the road once again becomes a camino real. 19.7

The road changes direction to the east, and a mile farther east passes through Toranso, which consists of one store, five houses, and a watering trough. At Toranso the road changes direction to the south, passing through brush and grass. 20.5

The road changes from a camino real to an ordinary cart road, and at this point it changes direction to the southeast. The road passes through sugar-cane fields. 21.5

The road reaches Natalia, which consists of five houses. The road continuing southeast, passes through cane fields and brush until central Juraguá is reached. 22.5

Central Juraguá. Hills called Tetas de Doña Tomasa to the north. The road changes direction to the northeast, passing through a brushy country, and 0.7 mile northeast of Juraguá changes direction to the east, passing through sugar-cane fields until Laguna is reached. 23.5

Laguna, located on small pond. Here the road changes its bearing to southeast, passing through brush and cane fields and proceeds toward Castillo de Jagua. 23.5

ROAD No. 20.

BOCALLE—JOBOSÍ—MANACAS—VIJABO LAS DAMAS.

General direction: SW. Distance: 22 miles.

IN GENERAL.

1. Bocalle to Jobosí.—As far as La Legua is a horse trail, and from that point to Jobosí is passable for bull carts in the dry season.

2. Jobosí to Manacas.—A dirt road, wire fences on both sides, impassable for wagons. From river south, passable for bull carts in dry season only.

3. Manacas to Vijabo Las Damas.—A dirt road, passable for bull carts only.

IN DETAIL.

Miles from Bocalle.	
	Leave Bocalle, going south.
2.0	Alunado. Ascend range of hills.
3.5	Summit of range of hills 1,050 feet high.
4.5	La Legua.
7.5	Cross Río Jatibonico del Norte.
8.0	Jobosí.
9.0	Road descends, high hill 1 mile to left; country rolling and open (grazing land).
10.0	Crosses river Jatibonico del Sur, steep banks. Knolls near afford opportunity for ambush. Road rises, trees and grass on right, grass on left; country rolling; crosses river Taguasco, steep banks.
12.7	Knolls near give opportunity for ambush.
13.0	Enters Manacas. Leave Manacas, going southwest. Road descends; woods; cross stream.
19.0	Rodrigos; cultivated; grass.
22.0	Vijabo Las Damas.

ROAD No. 21.

CASTILLO—PASA CABALLOS.

General direction: W. Distance: 10.4 miles.

IN GENERAL.

A trail practicable for cavalry at all times, but becomes very muddy during heavy rains.

IN DETAIL.

Miles from Castillo.	
	Leaving Castillo from the south, the trail turns to the west (250°) and traverses low, level pasture land, and reaches the northern bank of the Arimao River, which makes a big bend to the south after passing Castillo.
0.4	Follow the north bank of the river (310°) and enter gate after passing a small shack.
.5	Continue on alongside of river and pass through another gate. From this gate there is a trail to the north going to a house on the hill some 200 yards distant.
1.5	Traverse the north bank of the river through grazing lands and cross a branch of the river Arimao. The ford is about 30 yards north of the main river. The

branch stream flows to the northwest, while the Arimao makes a big turn to the south near this point. Miles from
Castillo.

Trail traverses (at 290°) low pasture lands, covered by small trees, to village called Guanaracoa. Arimao River is about 300 yards to the south. 2.5

Leaving Guanaracoa from the west the trail quickly ascends to a small hill and passes 300 yards to the south of a house and the ruins of an old Spanish blockhouse. At this point the trail forks, the northern branch goes to Milpa and the other branch continues to Pasa Caballos. 3.0

Trail continues to the west (280°) and becomes very rocky, with several short hills to go over, and then passes through a gate. Heavy underbrush along the trail. 5.0

Continue to the west (280°) over high ground covered by woods and grass, and, after passing through two gates, enter the old cavalry drill grounds used by the former garrison at Pasa Caballos. 7.6

Cross the drill grounds and continue west (280°) through woods to forks of trail. Both trails to Pasa Caballos. Southern trail preferable. 8.3

Through woods and pass under telephone line of the Cuban Submarine Telephone Company. Line goes from south edge of Cienfuegos Bay across peninsula to the ocean, at a point near the Punta de los Colorados light-house. 8.5

Continue west through woods, trail gradually descending, to the northern end of target range. From the northwest edge of the range there is a trail going over the hill to Pasa Caballos. 8.9

Turn to the south and traverse the target range and join the Punta de los Colorados-Pasa Caballos trail. 9.4

Turn to the northwest and follow the coast line to the Pasa Caballos wharf, passing to the north of some eight or ten houses and to the south of the foundations of barracks occupied by our troops in first intervention. Hills 100 yards to the north. 10.4

ROAD No. 22.**CIENFUEGOS—MANACAS.**

General direction: N. Distance: 3 miles.

IN GENERAL.

A good metal road over open rolling country as far as Manacas. Any kind of transportation could be used on road to Manacas.

IN DETAIL.

Miles from
Cienfuegos.

Leaves north of Cienfuegos, running in a general north-westerly direction, crossing Cuba Central Railroad near kilometer post No. 107. Crosses several small masonry culverts.

- 1.0 Passes road to right which leads to Palmira.
- 1.5 Crosses commanding ridge.
- 2.0 Crosses small stream by a masonry bridge 15 feet long.
- 3.0 Arrives at Manacas, whence road to east leads to Caunao or Palmira; trail to the left ends at small house.

ROAD No. 23.**CIENFUEGOS—CALABAZAS—CANDELARIA—ASENTO.**

General direction: SE. Distance: 2.7 miles.

IN GENERAL.

A poor bull-cart road running for the most part through cultivated country containing no particular features.

IN DETAIL.

Miles from
Cienfuegos.

Leaves Cienfuegos, passing Camp U. S. Troops to the left, passing by several fences and gardens on either side

- 1.0 of road, and brick factory to the right.
- 1.5 Arrives at Calabazas; one store. Turns south at
- 2.5 Calabazas and crosses small stream.
- 2.7 Turns east at Candelaria. An area of land runs thence generally east and ends at Asento, a finca.

ROAD No. 24.

CAIBARIÉN—GUAJÁBANA.

General direction: S. Distance: 5 miles.

IN GENERAL.

A fairly good dirt road, but impassable for wagons in rainy season.

IN DETAIL.

Leaves the Caibarién-Remedios road at the second crossing of the road by the Cuba Central (narrow gauge), at a point 1.2 miles south of Caibarién. Miles from Caibarién.

Long, low, wooded hill on left and near road; good position for ambush; woods on left of road, cane on right. **3.0**

Enters Guajábana. **5.0**

ROAD No. 25.

TRINIDAD—CASILDA.

General direction: S. Distance: 3.5 miles.

IN GENERAL.

This is a fine road built in 1898 by the United States Army. It runs from about 4 miles north of Trinidad through Trinidad to Casilda.

There is one wood and iron bridge 0.5 mile north of Trinidad in good condition. The road is almost straight and adapted for all arms of the service. There are several other wooden bridges in a good state of repair. There are no steep grades, but there is a gradual rise from Casilda to Trinidad.

Total length of road, 7.5 miles.

ROAD No. 26.

MAYAJIGUA—ESTERO REAL (PLAYA DE FRANCISCO).

General direction: N. Distance: 9 miles.

IN GENERAL.

Dirt road. Country, level and wooded. Passable for wagons in dry season.

IN DETAIL.

Miles from Mayajigua.	Leave Mayajigua, going north.
2.0	Constancia (one house), west of which is a circular field; work for 20 men; bad condition.
3.0	Crosses river Aguacate.
4.0	Branch road runs 2 miles northwest to Rosa María, from which a railroad runs north to Estero Real.
9.0	Enters Estero Real. East of this point is a low range of hills along the coast known as Sierra de Caguanes and Sierra de Judas.

ROAD No. 27.

SEIBABO—PLAYA.

General direction: N. Distance: 3.4 miles.

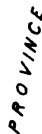
IN GENERAL.

A dirt road generally, but at places only a trail.

IN DETAIL.

Miles from Seibabo.	
1.2	Júcaro; trail crosses railroad and then follows along it.
2.4	Crosses river Guanabo.
3.4	Playa; dock and storehouse; 6 feet of water at dock.

MATANZAS PROVINCE



PROVINCE OF CAMAGÜEY.

ROAD No. 1.

OJO DE AGUA DE LOS MELONES—GUÁIMARO—CASCORRO—SIBANICÚ—
CAMAGÜEY—SAN GERONIMÓ—CIEGO DE ÁVILA—MAJAGUA—TRIL-
LADERITAS—JATIBONICO.

General direction: W. Distance: 181.5 miles.

IN GENERAL.

A road practicable during the dry season for bull carts and light loaded wagons. During the raining season practicable only for bull carts.

IN DETAIL.

Leave Ojo de Agua de los Melones, going west on wagon road. Miles from Ojo de Agua.

Turn northwest on bull-cart road. Cross four small streams and reach Minas de Rompe. Take road west. Telegraph line.

Consuegra. Go west on wagon road, crossing Arroyos Quemados Grande and la Vega. Pass finca Jagüita. Cross Río Guáimaro and enter Guáimaro. Leave Guáimaro northwest, passing cemetery on the south. Cross small Arroyos Verdecia and Marqués and reach Arroyo Hondo. Go north on wagon road, passing La Loma de la Caridad on east.

San Antonio de la Mina. To the north is Loma la Deseada. The wagon road and telegraph line run west. Pass Arroyo del Lindero, a small brook, and the fincas Guáimaro and Tana, and reach Río Tana, and settlement of same name. Road now runs northwest. Pass ruined sugar mill, Palo Quemado Martí, railroad station. Take road north. Pass Arroyo Indio and reach Cascorro. Take road northwest. Pass Arroyo Duran and Arroyo Salado. Cross Arroyo Sibanicú.

Sibanicú. From Sibanicú to Trilladeritas, *see* Pelayo crossing of Jatibonico River—Trilladeritas—Majagua—San Gerónimo—Camagüey—Ignacio—Imias—Sibanicú road from 155.2-mile point to 10.7-mile point.

Trilladeritas. From this point take bull-cart road north-west.

Jatibonico.

181.5

ROAD No. 2.

EMBARCADERO DE CIMARRON—CIMARRON—LAJAS—CUBANA—PORCAYO—CAMAGÜEY—LA GLORIA.

General direction: NE. Distance: 78.5 miles.

IN GENERAL.

1. Embarcadero de Cimarron to Camagüey.—Ordinary dirt road, suitable for escort wagons in dry season and for bull carts at all times. No bridges; country flat.

2. Camagüey to La Gloria.—A fairly good dirt road in the dry season, but rough near stream crossings and pass through Cubitas Mountains. Teams can not pass each other in latter. Practicable for bull carts and lightly loaded wagons. Country from Camagüey to Cubitas Mountains mostly open, with grassy plains. Pass through mountains, and roads north of mountains heavily wooded, except where cleared by settlers. Country about La Gloria is being rapidly settled by Americans; roads, woods, and natural features constantly changing. Abundant wood and water at streams between Mount Yucatán and Cubitas Mountains; nothing but cisterns, wells, and water holes north of mountains. Weather exceedingly dry when route was covered.

IN DETAIL.

Miles from Embarcadero de Cimarron.	
	Leave Embarcadero de Cimarron, going northeast, and pass over a corduroy road.
3.0	Cimarron on the right.
11.0	Open country.
13.0	Cantina Lajas on left.
15.0	Bottom lands, heavy timber.
18.5	Cantina Cubana.
22.0	Open country.
23.0	Cross Río de las Yeguas, flowing southwest, 15 feet wide, 30 inches deep, bottom muddy, fluctuation of 6 feet.
26.0	Cross Río de las Yeguas again flowing south, 15 feet wide, 30 inches deep, muddy bottom.
33.0	Country open; begin descent at point 1,000 yards from
33.5	Porcayo. Road now runs east to Camagüey.
41.0	Cross Tinima River and enter Camagüey. Proceed north from Camagüey on Republica street.
42.0	Take first right-hand road after crossing Cuba Company Railroad.
44.0	At Cantina, take right-hand road.

	Miles from Em- barcadero de Cimarron.
Pass to left of Yucatán Mountain and cross Arroyo Yucatán; good crossing.	49.0
Cross Río Montecito; good crossing.	51.5
Cross Río Robles; good crossing. Take middle road beyond stream.	53.5
Cross Río Chiquito and Arroyo Cubita. Cantina here. Last streams before reaching La Gloria.	55.5
Enter first pass (camino Viejo Guanaja) west of Mount Tuabaquey. Road to this pass leads almost directly north from Cantina; first road branching to left from Cantina goes to Limones, and second road to left to Paredones pass. Road through pass very rough and rocky.	58.0
Large cave, 0.5 mile to right of road.	59.0
Leave pass, keeping right-hand road almost directly east. Road to left at this point goes to Palm City.	60.0
Take left-hand road. Road to right goes to Minas. Near this point is a natural basin, which is said to fill with water in the rainy season, making roads impassable, and a guide is necessary to avoid said obstacle.	65.0
A water hole to right of road. Furnishes water even in driest weather; quality of water is poor, but used by animals.	67.0
Garden City. An American settlement of a few houses. Take pasture road to right.	68.5
Good well. Near well take Central avenue northeast to La Gloria.	70.0
La Gloria.	75.0
Wharf of Cuban Steamship Company. Shallow water. Available for light-draft vessels. Return over same route to La Gloria.	78.5

ROAD No. 3.

PELAYO CROSSING OF JATIBONICO RIVER—TRILLADERITAS—MAJAGUA—CIEGO DE AVILA—SAN GERÓNIMO—CAMAGÜEY (PUERTO PRÍNCIPE)—IGNACIO—IMÍAS—SIBANICÚ.

General direction: E. Distance: 155.2 miles.

IN GENERAL.

1. Pelayo crossing to Ciego de Avila.—This road is practicable for pack trains only, and not for loaded army wagons. In the wet season pack animals will get through. The first 8 miles has many steep grades.

2. Ciego de Avila to Camagüey (Puerto Príncipe).—The road is known as the camino Real (Central); an unimportant dirt road, rough but practicable for all army transportation during dry season. Stretches lying in low ground or through forests are impracticable in wet season except for horsemen and light pack trains.

3. Camagüey to Sibanicú.—A very good macadam road from Camagüey to about 1.5 miles west of Ignacio; good for every kind of transportation in wet and dry seasons. Small bridges and culverts at about a quarter of a mile apart from Camagüey to end of macadam road. From this point the road is a fairly good dirt road to Cascorro.

IN DETAIL.

Miles from
Pelayo crossing.

- Crossing of Jatibonico River at finca Juan Gómez. Take road east. Road bad; covered with drift wood.
- 0.5 Cross dry arroyo. Double team required to cross with wagon. Ascend steep hill, road cut up with ruts; could not be passed by wagons in rainy season. Traces of Spanish trenches; 200 yards to left of road finca Majagua.
- 1.0 Top of hill.
- 3.0 A road joins from Cachopo, southeast. Go down hill. Enter woods.
- 2.7 Ojo de Agua, a finca.
- 3.0 Road now better; hard, smooth, and level. Begin descent.
- 5.5 Cross Arroyo Guanabo at place of same name.
- 5.8 Ground low; soil black and rough.
- 6.5 A road joins from southeast.
- 8.0 Pass through palm grove.
- 8.2 Madrigal to left; one house.
- 8.7 A road joins from northeast (from Trilladeritas). Take this road
- 10.7 Reach top and northern crest of ridge where road begins to descend toward Trilladeritas (1,000 yards distant); road forks. Take right-hand road leading for 0.7 mile over level plateau.
- 11.5 Road descends through brush to shallow depression with unimportant dry run, crosses gentle ridge and 0.5 mile farther on passes second small run (dry). The approaches to these two runs are rough but practicable. The road has become bad, with deep ruts, narrow and confined between mimosa and other thorns, making turning out impossible.
- 12.5 Road comes in from right from Las Nuevas, and 300 yards farther on the road enters wood 1.2 miles wide, cut by deep ruts, thick branches of trees lying in road.

Bad mud hole that can not be avoided; impassable in wet season; barely passable with empty wagon in dry weather, and shortly beyond comes to a dry run with bad approaches on either side. Road defies description. Miles from
Pelayo crossing.
13.2

Road emerges from woods and ascends plateau of red soil, rough, rocky, ruts, and bearing many corajo palms and mimosas. On reaching plateau 300 yards from edge of woods, road comes in from southwest. Our road stumbles along over this plateau for 3 miles without change. 13.7

Road enters woods, 0.5 mile wide; road narrow, deep ruts, very rough; in middle of wood is dry run with rough approaches needing double teams; 300 yards beyond crossing the road ascends a slope steeply over bare rock; rise about 40 feet; needs double teams. 16.7

Road emerges from wood; road comes in from south (Rincones). Another strip of 300 yards of woods again makes the road as bad as ever. On emerging from this last wood road meets corner of fence and turns slightly northeast. 17.2

Reach gate. Within gate road very rough, descends to shallow depression with two dry mud holes, and then ascends to grade crossing of Cuba Company Railroad over 500 yards of road strewn all over with large stones. After crossing railroad track road forks, left branch going north to Río Grande, right road to Majagua station. From this point the road is impracticable for wagons and bull carts. 18.2

Majagua station of Cuba Company Railroad. Leaving Majagua, across railroad track and lumber yard, go south on road 500 yards, and go through gate in fence on left. 19.5

Enter the woods along Río Grande and cross that river; banks 30 feet high, approaches fair but need double teams; ford stony, firm, and good; water beautifully clear, 20 feet wide and 6 to 12 inches deep. On reaching left (east) bank keep to left, and after passing through two wire gates emerge on railroad embankment between track and fence, and follow railroad to Guayacanes station. This is not a public highway, but if all the boulders and logs and railroad ties were cleared out of the way it would make a fairly good road. Halfway to Guayacanes the road was blocked by lumber camp (ties). 20.0

Guayacanes; station of Cuba Company Railroad 11 miles west of Ciego de Avila, Ceja de Guayacanes near by. Shipping place for lumber. Cross Guayacanes River by good ford with good approaches; bottom strewn with boulders; 21.0

27.0

Miles from
Pelayo crossing.

- water 40 feet wide, 15 to 24 inches deep, and very clear. Again march on the right of way of the railroad, south side, for 1 mile, when, after crossing dry run, the road ceases to be practicable. Here turn into road to south and follow it through open savanna for 0.7 mile until houses of Pérez stock farm are visible 1,500 yards to east, then march toward houses. Half way to them cross Jicotea-Guayacanes road, reach houses through two successive gates, continue east following bridle path; take left-hand path where it splits 200 yards from house and passing dry run and two more gates reach next house 1,500 yards distant (well near house with wide shallow iron watering trough). From this house turn south and follow cattle paths for 1,000 yards to telegraph line, then turn east and follow telegraph line over open savanna and through half a dozen gates, until just beyond the road
- 32.0** turns northeast and reaches Caguayal siding. From Guayacanes to this point the road is rough but by no means bad; there are no ruts in the road, and only one water hole to cross (about 2 miles east of Pérez farm) which is practicable for a few wagons, but needs corduroying for a wagon train to pass; water 8 inches deep and 10 feet wide; 300 yards south of the siding the telegraph road comes in from Ciego de Avila. This road runs all the way between wire fences on low ground and is a most atrocious piece of road, deeply cut with ruts, rough and wholly impracticable in wet weather. The crossings of the Jicotea River and Los Negros Creek are both fair, but the Jicotea will need doubling of teams owing to sand on one side and steepness on other.
- 34.0** Jicotea Creek; crossing fair, good bottom, water 12 feet wide and 1 foot deep; eastern approach steep, western approach deep in sand; teams need doubling. Road continues rough through savanna country between fences.
- 37.5** Los Negros Creek, 6 feet wide, 4 inches of water; sluggish; approaches fair. Road continues as bad as heretofore, but at 38 miles begins to ascend and improve.
- 38.5** Crosses Cuba Company Railroad 1,000 yards from Ciego station; condition good; turns east into Ciego de Avila.
- 39.2** Reaches Ciego de Avila. After crossing small creek east of Ciego de Avila (Arroyo Menchaca), the soil gradually becomes sandier and poor; cattle country. Road rough but fairly good and between wire fences; water courses dry, insignificant and no obstacle.
- 47.7** Las Artemisas on left (north), American cattle ranch.

- Road now enters open woods and continues so to Jobo-
balao, a finca of three houses and cantina. Plenty of
good water, grazing and wood. Camping ground for a
regiment, but site is flat and would be swamped by rain. Miles from
Pelayo crossing.
50.7
- House on right (south); pass through gate; country
more or less open; view limited by scattered small trees. 51.2
- Camp at division of roads. Well with ample water
and large watering trough on edge of brush 200 yards
south of camp; plenty of wood and grass; flat camp site.
Road continues east 1 mile direct to San Nicolás; two
houses on gently rising, open, grassy hill affording wide
view. This road leads to Magarabomba. Water at
San Nicolás scanty and bad. From San Nicolás a road
leads south to Gaspar on Cuba Company Railroad, cross-
ing the camino Real at south foot of hill. From division
of roads take right-hand road leading off to southeast
around southern foot of San Nicolás hill. 52.7
- Cross San Nicolás-Gaspar road; roadway sandy and
good, but rather dim after crossing first-named road. 55.2
- Meet government telegraph line where it turns south-
west to Gaspar. Flat country. Road now follows tele-
graph line all the way to Camagüey. Cross Arroyos las
Cruces and Dormitorio, with rough, washed out and
narrow approaches; firm, sandy bottoms, 10 feet deep,
30 feet wide from bank to bank. 56.2
- Cross Cumanayagua River; dry; 15 feet deep; 75 feet
wide from bank to bank. Approaches steep and rough;
bottom muddy; crossing difficult. Road now becomes
excellent and runs through open grazing country with
some scattering trees. 59.2
- Cross Cuba Company Railroad 1 mile west of Ciego
Corojosiding and house. Character of country unchanged.
As road approaches Soledad River (or Río Mala Recua) it
becomes soft and bad; soil black and a little swampy. 63.2
- Cross Soledad River; dry at crossing; 40 feet deep, 200
feet wide from bank to bank; bottom firm; approaches
steep and washed out; crossing very difficult. 66.7
- Culminal on left (north). Finca of one house; well 60
feet deep; water scanty and brackish. Pools of water in
river 600 yards above and below road crossing. Plenty
of wood and grazing. Camp site for a regiment. 67.2
- Finca Soledad on right (south); two houses. Pass San
Estéban (finca). 68.2

Miles from
Pelayo crossing.

- 68.7** Cross east branch of Güiros River (or Río Mojacasabe); 40 feet deep; approaches for 100 yards on either side washed out, narrow and steep; bottom muddy; crossing difficult; road now becomes dry and sandy; country open.
- 72.2** Cross Río Hachuela; 20 feet deep, 100 feet from bank to bank; approaches bad but practicable; bottom muddy and soft; very little water. Road now continues through open country; roadway sandy but hard.
- 75.5** Cross Río Guásimal; 40 feet deep, 150 feet from bank to bank; bottom firm and sandy; no water at crossing; approaches precipitous and very difficult; banks on either side are covered with dense woods for 200 yards, and road is completely barred several times by large mud holes. East of this jungle the road again becomes good.
- 77.2** Los Güiros on left. Finca of one house. Road gradually ascending.
- 79.2** Las Piedras on left; two houses; part of finca of same name 1 mile northeast. Well 70 feet deep, water brackish.
- 81.2** Cross Arroyo Cayo Largo; 15 feet deep, 75 feet wide from bank to bank; approaches washed out, narrow and bad, but not impracticable; bottom sandy, hard and dry.
- 81.7** Sabanilla on right. Finca of one house.
- 82.2** Cross Río Mala Fama; 10 feet deep, 50 feet wide from bank to bank; sides steep; rough and difficult approaches; bottom muddy and soft; stream 6 feet wide.
- 84.2** San Gerónimo. Good well water behind quarters of rural guard. The town is situated on a hill with long, gentle slopes. Camp site for two brigades, barring inadequate water supply.
- 84.7** Cross Río de La Pita; 30 feet deep, 200 feet wide from bank to bank; approaches badly washed out, narrow and steep. Road for 500 yards on either side full of mud holes; bottom very soft; little water.
- 85.7** Cross Río Muñoz; 50 feet deep, 300 feet wide from bank to bank. Approach on west bank bad and muddy for 500 yards; east approach long and deeply rutted; bottom sandy and firm; small stream of water. This crossing is extremely difficult for wagons. From here road runs in woods for about 4 miles; ground is soft and muddy.
- 91.2** There are four bad crossings of dry creeks before reaching El Progreso; two houses on left (north), and 300 yards farther on, Calabazar on right (south), one house.
- 92.7** Pass old church, and tienda of La Unión on left (north).

Traverse boggy ground for 0.5 mile, ending in large mud hole, which extends for several hundred yards on either side of the road.

 Miles from
 Pelayo crossing.
93.7

Consuelo on right (south), one house. From here the road is open, hard, and good to La Tenería on right (south), one house; well 30 feet deep; water scant and not used. Plenty of wood and grazing; large pools in Río de las Yeguas, 300 yards away, for bathing and watering stock. Sufficient camp for battalion on road. Flat camp site for regiment in pasture south of road. No suitable camp site on east bank. Río de las Yeguas is convenient to water.

94.2
95.7

Cross Río de las Yeguas; 30 feet deep, 200 feet wide from bank to bank; west approach for 200 yards sunk 10 feet below surface, wide enough for one wagon only, full of bowlders, and as it nears the stream it drops away in irregular terraces of bare rock. East approach 300 yards long, rutted, and sunk in soft soil. Bottom rocky and 50 feet wide. Road runs from here over gently rolling country.

96.2

Road traverses swamp for 0.5 mile; bottom treacherous and full of stumps. Road then becomes fairly good and hard for about 5 miles.

97.7

Cross creek twice; eastern crossing rough, but practicable; western not bad.

102.7

Porcayo on right (south). Three houses and cantina. Rural guard station.

104.2

Old sugar mill Santa Rosa on left (north). Road from here on in low, swampy land; a very narrow trail hemmed in by mimosa thickets. One very bad mud hole 200 feet wide and about 300 yards west of Santa Rita on left (north); cantina at junction of road leading north and camino Real.

104.7
108.2

El Taburete de los Claveles on left (north).

108.7

Strike unfinished macadam road into Camagüey.

110.2

Old brickyard El Imán on left (north).

110.7

Hospital San Lázaro on right (south). Here road crosses Río Tinima and enters Camagüey.

111.7

Camagüey. Leave Camagüey at southeast corner, going through good pasture land with a good many houses on both sides until after the first railroad crossing, after which the land is poor, being hilly and savanna to the left and flat to the right. A long hill starting

113.2
117.2

Miles from
Pelayo crossing.

- near the first crossing has its summit halfway and near the second crossing slope about 3 per cent.
- 118.2** After the second crossing the road goes through flat grazing country more or less wooded on both sides.
- 121.2** At Canida, a country open and rolling; very good grazing. Slope starts at this point, summit about 0.5 mile and base about 1 mile from Vidot.
- 123.2** At Vidot, a cantina, an old little used road from Camagüey joins. The country is rolling; hill to right Loma Alta; country partly open; well-built houses on both sides.
- 124.7** Vista Hermosa, a cantina. A road leading to it from south coast called Najasa road. Country is rolling. From the crossroads to Misericordia, country is rolling and open, slopes of road not more than 3.5 per cent.
- 126.2** From Misericordia to end of macadam road country is flat, partly open; good grazing land here. Twenty-two kilometers from Camagüey, the end of the macadam road, a small stream flowing north is crossed by a large iron bridge. Quarter of a mile beyond cross tributary; small stream; ford; no bridge.
- 127.2** From this stream to Ignacio road is ordinary dirt road, poor in wet season and impassable for loaded wagons. Country wooded; houses thatch.
- 128.2** From Ignacio to Imías road is ordinary. A bad mud hole about 0.2 mile east of Ignacio, a station with four or five cantinas and a bakery. To east of here there is a conelike hill, Loma Mina, about 400 feet high, which makes a good landmark. Road itself is fairly level; country grazing, partly wooded. Next 10 miles through heavy woods. Source of heavy timber supply.
- 138.2** At Imías there is a good wooden bridge over an arroyo. Here there is a splendid camp for a large force. Country is flat and partly wooded. The road is poor from here to San Ramón; wooded and unfenced, with deep ruts. Houses poor. A few hills to the right.
- 142.2** At San Ramón three roads come together; one, the Brazo camino, goes southwest to San Tadeo; the other, Sevilla camino, goes to Cascorro. From here the country, continuing wooded, goes over a long hill with 0.5 per cent slope at top. A hill to the right. From this point the country is more open and mostly flat, crossing stream near Santa Isabel; no bridge.
- 145.2** From Santa Isabel to Sibanicú country is flat and partly open.

Sibanicú. About 500 yards beyond the village the Sibanicú stream crosses, over which there is a good strong bridge, wooden with stone pillars, fit for any transportation. Plenty of good camp sites along stream to Cascorro; the road is good but unimproved, passing through good grazing land. Miles from
Pelayo crossing.
149.2

Meet a wooden bridge with stone pillars over Cascorro River 300 yards from Cascorro. Good open space north and south. Camp for large force on river. **155.2**

ROAD No. 4.

IGUARÁ—RÍO GRANDE—LÁZARO LÓPEZ—CIEGO DE AVILA—JIQUEMAL—VERTIENTES—DOMINGO DÍAZ.

General direction: SE. Distance: 84.8 miles.

IN GENERAL.

1. Iguará to Ciego de Avila.—Bull carts could possibly pass over this road in dry season. There are many streams to cross which, during rainy season, would be obstacles of importance.

2. Ciego de Avila to Jiquimal.—A fairly good road in dry season, but during rainy season would be impassable for wheel transportation and difficult for mounted men and pack animals on account of low ground.

3. Jiquimal to San Rafael.—A difficult road to pass on account of the swamp of the Río Itabo. It is difficult for horsemen and pack animals. It could be made passable for wagons by corduroying.

4. San Rafael to Domingo Díaz.—Passable for horsemen during dry season, but is flooded during the rains 2 or 3 feet.

IN DETAIL.

Leave Iguará, going east. Here are Spanish trenches built to command an approach from the direction of Arroyo Blanco (northeast). Miles from
Iguará.

Road crosses Arroyo Zurrupandilla; 30 feet wide and 1 foot deep at ford; clear running water, sandy bottom; banks 30 feet high and 80 feet across; approaches steep, narrow and winding. Would require cutting to allow wagons to pass. **1.7**

Road cut up with ruts. Cross stream 6 feet wide and 6 inches deep; sandy bottom; banks 20 feet high and 40 feet across; approaches steep and require cutting to admit passage of wagons. **2.3**

Miles from
Iguará.

- Road joins the Iguará-Majagua road. Road toward
- 2.8 Majagua passable for wheeled transportation as far as visible.
- 3.7 Telephone line crosses the road; 1 wire; runs to Arroyo Blanco (north) and Jatibonico (south).
- 5.7 Cross small stream 20 feet wide and 1 foot deep; rock bottom; banks from 20 to 50 feet across; cutting necessary for passage of wagons.
- 5.8 Juan Creolle.
- 6.7 Road crosses a dry run; good approaches.
- 7.6 Pass through a fence and down a ridge 100 feet high. A branch road goes north to Arroyo Blanco.
- 7.8 Cross small stream 6 feet wide and 6 inches deep, branch of Arroyo Trilladeras, sandy bottom; banks 15 feet high and 30 feet across; approaches steep.
- 7.9 Pullolito. Enter thick woods.
- 10.0 Trilladeras.
- 10.3 Branch of Arroyo Trilladeras, 20 feet wide; hard gravel bottom; banks 25 feet high and 60 feet across; approaches steep.
- 10.5 Ascend steep grade from arroyo, 30° to dry arroyo bed.
- 11.3 Cross dry run; approaches bad, branch of same stream.
- 12.4 Guayan. A road goes to Guayo; suitable for wagons.
- 14.0 Junction with Guayo-Santa Teresa road. Pass thick woods.
- 17.0 Two roads branch to the north, the more easterly to Santa Teresa and is passable for bull carts. The other is fenced off and unused.
- 21.1 Cross branch of Río Grande, 20 feet wide and 1 foot deep; clear running water; rocky bottom; banks 20 feet high and 50 feet across; approaches steep.
- 21.6 Cross Río Grande, 40 feet wide, 2 feet deep; rock bottom; banks 20 feet high and 60 feet across; approaches steep.
- 21.8 Cross branch Río Grande; 6 feet wide, 1 foot deep; rock bottom.
- 22.0 La Reforma.
- 22.1 Cross branch of Río Grande; 6 feet wide, 1 foot deep; clear running water; rock bottom; banks 20 feet high and 40 feet across; approaches steep. Road passes through two fences 500 yards apart.
- 23.7 Pass through fence.
- 24.3 Old Río Grande in ruins. Main road continues to Majagua. Road to Lcs Hoyos and road to Iguará.

Río Grande. A trail runs to south. A branch road runs northeast to Marroquí.	Miles from Iguará. 24.7
Road crosses Arroyo Farfan. Road passes through woods.	26.4
Old road goes northeast.	28.8
La Ciénaga. Cross Arroyo Corrales; 40 feet wide, 2 feet deep; rock bottom and good approaches.	29.5
Cross small stream 6 feet wide, 6 inches deep; sandy bottom and good approaches. A road runs off to southeast. Cross dry run. Easily crossed.	30.4
Cross small stream.	33.2
Cross small stream 10 feet wide and 6 inches deep; stringer bridge, dirt covering, 20 feet long and 12 feet wide; 4 feet of water; approaches bad.	33.8
Lázaro López. A road south to Jicotea. Telephone connecting Marroquí and Jicotea. Cross Río Jicotea; banks 8 feet high; approaches good.	34.5
La Sufre.	36.7
Cross dry arroyo; easily passable.	37.0
El Salado. Cross small arroyo.	40.1
Pass through old hacienda of El Masio. Road north to La Mina. Cross Júcaro-San Fernando Railroad.	42.0
Enter Ciego de Avila. The road leaves the town from the south by Delgado street, running southward, crossing the Cuba Company Railroad, passing under telegraph line and (bearing of railroad 25° north of west) at 100 yards southeast of the sawmill on the right, 50 yards south of railroad, road forks. Take left-hand road, which is better worn and runs southeast; passes a dry run at right angles and continues between wire fences 12 yards apart. After 100 yards in the open the road enters a thin forest of scattered hard-wood trees and guano palms, with a view of 0.5 to 1 mile to the right (south) and of 0.2 of a mile on the left (north) where the underbrush is more dense. Road excellent; soil brown.	47.0
The finca El Jiquí is passed on the left (north); consists of one house with several small adjoining buildings, about 100 yards from road. It is surrounded by wire fence.	48.0
Finca Tirante is passed on the right (south). Underbrush prevents extended view on right and left of road. Pass fincas Zanja and Macho.	49.0
Finca Tasajera (one house on each side of the road) is a conspicuous place on account of the large house on the right (south) of the road and 100 yards from it.	49.2

Miles from
Iguará.

- 49.5** Road continues southeast with wooden worm fence on the right (south) and wire fence still on left (north). Woods become more open, admitting a view of 0.2 to 2 miles on the right (south) and of 0.2 mile on the left (north). Corajo palms begin to appear; guano palms continue. Soil changes from brown to red.
- 50.0** Road forks; right fork leads southward 0.5 mile to finca Zanja del Retiro and beyond. Take left-hand road, which is better worn and runs southeast. Soil changes from red to brown.
- 50.5** Good straight road continues southeast parallel to wire fence on left (north) through thick grove of corajo palms, with underbrush too thick to admit of any view to right (south), but allowing view of 200 yards on north (left); 300 yards from fork a trail enters from the south; 80 yards farther is a gate in the fence on left. Road forks, forming two nearly parallel roads; take left-hand one near fence, which is better.
- 51.0** Fence on left (north) ends. Parallel roads unite and enter thick forest of hard-wood trees and scattered corajo palms; more dense on left (north). Several branching parallel roads through forest not well worn. Best one runs 30° south of east.
- 51.5** Road crosses dry run, whose direction is from northwest to southeast. Road contains many stumps of small trees and underbrush; in places badly cut and deeply rutted by bull carts. New clearing in timber of 1 acre on left.
- 52.0** Road passes through gate in wire fence running 30° west of south, 100 yards beyond which is a fenced pasture containing high grass and scattered trees. Forest becomes more open as road continues to Las Coloradas, which is situated on the right of the road. Road, in brown soil, leaves the finca at 40° south of east and continues southeast parallel to wire fence on the right (south) through generally open country with scattered corajo palms. View on the right (southwest) about 2 miles, and on the left (northeast) about 1 mile.
- 53.0** Gate in wire fence running north and south. Road forks east of gate; take right-hand branch (left-hand road supposed to lead to vicinity of Santa Rita). Road continues southeast with a view of 0.5 mile on right (southwest) and 0.2 of a mile on the left (northeast). Ruins of a chimney about 50 feet high a prominent landmark on the right.

Gate in fence running east and west; country becomes more open; scattered corajo palms. Appearance of ground indicates that this area is flooded in the wet season. Chimney still seen on the right. Road becomes a trail, but slightly marked by wheel tracks; soil changes from brown to red clay. View on right (southwest) for 0.5 mile and on left (northeast) for 1 mile. Miles from Iguará.
53.5

Gate in fence running east and west. Trails branch south and extend parallel to fence in both directions. 54.0

Trail passes through a narrow strip of thin woods, with underbrush and abundant corajo palms. 54.2

Trail enters forest of hard-wood trees and corajo palms; many small palms are in the road. 55.0

Forest becomes more dense; palms disappear; red clay; road badly marked and deeply rutted in places by bull carts. 55.7

Red clay in road very soft. Difficult for wagons to pass; good bridle trail on right of road suitable for horses and pack animals during the dry season. Corajo palms appear again. 56.0

Corajo palms increase in number and hard-wood trees diminish. Trail becomes more open, harder, and deeply rutted. Trail forks, both forks being equally marked. Take left-hand trail, which gradually turns east. (Right-hand trail continues southeast for about 200 yards, where it joins an excellent road running southwest to Jiquimalito, and, in the opposite direction, northeast and then east to Jiquimal.) 56.6

Road from fork turns east and joins road from Jiquimalito. From this point a well-worn trail extends eastward to the house on the north of the road, while the road itself turns 10° south of east and runs about 300 yards through open country to the crossroads at Jiquimal. The finca of Jiquimal has corral, wood, water, and shade; good camp site for small detachment. Jiquimal is important road center; to the northeast an excellent road runs 2 miles to La Misericordia; to the southeast passes the road through the Río Itabo swamp to Santa Isabel about the same distance with a fork leading south to San Francisco de Itabo. These roads connect with all the fincas to the south and east. To the southwest extends the road to El Jagüeyal, 2.5 miles distant, and to the west passes the road to central Jagüeyal, about 6 miles distant. To the northwest is the Ciego de Avila road, just described. 56.7

Miles from
Iguará.

The trail begins at the gate in the worm fence (running 25° north of east) between two large corajo palms and the small corral just east of the southern house of the finca. From the gate it turns a little east of south, passes under a large tree on the right and continues south parallel to the fence about the vacant house. On the left is thick underbrush, scattered hard-wood trees, and corajo palms; 20 yards beyond the gate fence ends and trail turns south-east; 100 yards more a thick wood is entered, in which the trail is well worn in red clay; 100 yards through the woods a fence corner is seen on the left (branches of fence bearing 40° east of north and 30° south of east, respectively, and inclosing high grass, scattered trees, and palms). The trail continues parallel to this fence for 25 yards and enters thick forest and becomes muddy.

57.2 Gate in fence running 10° south of east. Trail passes through gate and crosses the Río Itabo, a swamp stream formed by Arroyo Guayabo and Arroyo Balboa, and surrounding swamp, extending from northeast to southwest. In this swamp the road forks, the left branch continuing southeast 1.5 miles to Santa Isabel. Care should be taken to turn far to the south on one of the several parallel trails which lead out from this swamp, so as to take the right-hand (south) branch of the road. On the south side of this swamp the various small trails unite and form a single road running 30° east of south through a thick forest, in which the trail is well marked by deep ruts. Soil near swamp is black, but soon changes to brown.

57.7 Winding southward through thick forest the road is very rough; there are, however, good bridle paths on both sides.

58.2 Road turns south, becomes straight; woods cleared for 4 yards; large ant-hill on left, cornfield on right, 50 yards from which is the first house of San Francisco de Itabo.

58.7 Road continues south through forest and becomes more marked by wheel tracks.

59.7 Road turns southeast; brown mud becomes very hard; many bridle paths on both sides.

60.7 Better road. Passes fence on right (west) inclosing banana grove, and then enters open, and bends south; at this angle trails lead north and east. Thirty yards farther south is the principal house of San Francisco de Itabo, on the right of and near the road, surrounded by worm fence, back of which grove of royal palms; 100

yards east on left of road is a second house almost concealed by vegetation.

Miles from
Iguará.

Just south of the house at San Francisco de Itabo the road forks, the right-hand road going west of south for 4 miles to Baragua. Take left-hand road leading south; good road with wheel tracks in brown soil; runs through forest of hard-wood trees and guano palms on both sides. **61.4**

Road forks; right-hand branch continues south about 0.2 mile; leads to the principal house of Echemendía (Charmendia). Take left-hand road, which leads southeast about 200 yards to a second fork. The right branch of this fork leads southeast to San Rafael. The left-hand branch of this second fork leads eastward to the houses on the east. The two houses at Echemendía are 0.2 mile apart. Road leaves the finca on crossroad about equidistant between the two houses and running 35° south of east; red soil, deeply marked but not deeply rutted. After leaving crossroads it bends toward the east, meeting first a trail from the principal house from the northwest and then a trail from the house on the east which arrives from the north. **61.7**

Road slightly marked by wheel ruts enters a forest of scattered guanos and continues southward. **62.7**

Road changes from soft red clay to hard brown soil, circles first to right (west) and then to the left (east) through a clearing 5 yards wide in the forest and continues southeast. **63.7**

Road forks; both branches lead to San Rafael; right branch shorter and better. **64.4**

Soil changes from brown to red clay; road well marked by wheels and trail less deeply sunken. **64.7**

Road grown with grass; trail less deeply sunken; continues in forest of hard-wood trees, guano and smaller palms with fibrous trunks. Road turns south, enters open place and continues to fork, where it divides into three roads at a house on the southwest of San Rafael. The right-hand road leads west, passing the house on the left and continues for about 2 miles to Baragua. The left-hand road leads northeast about 0.2 mile to the principal house of San Rafael. The center road continues south, passing the western house on the right and then southeast for San Juan. From the northeast corner of the more southern of the two houses at San Rafael four roads lead off in different directions. The road north extends 3.7 miles in a northwest direction to Echemendía. The road **65.4**

Miles from
Iguará.

- 30° east of north runs about 0.2 mile to the principal house, the road continues about 2 miles in that direction to Baragua, and the road southwest extends for about 50 yards and then divides into three trails; the left-hand one (eastern) leads to San Pablo, about 3 miles, while the right-hand one (western) continues in red soil parallel to a wire fence on the right (west) through a grove of guano and jata palms at 40° east of south. This last is the trail for San Francisco de Sánchez.
- 65.9** At 0.2 mile meets lane running northeast, fences 8 yards apart, beyond which a wood and wire fence extends also on left of road which turns and runs 10° south of east. Soil changes from red to brown.
- 66.4** Gate in fence, and one house, occupied, 100 yards on left. Passes through thick woods on the right, open country and high grass on the left, and scattered guanos on both sides. Trail turns 60° to left.
- 67.4** Trail runs northeast parallel to wire fence on left, then clearing in woods for 50 yards; trail deeply rutted in one place by bull carts; then east, leaving wire fence on left and enters thick woods in hard, dry mud; makes a rough road for 100 yards.
- 67.6** Trail well worn in high grass; scattered woods on both sides. Enters lane, fences 12 yards apart; fence on right half wood and half wire. Gate in lane, on right of which is occupied house; leads to irregularly shaped clearing surrounded by wire fence, short grass crossed by many trails (small). Main trail leads southeast parallel to fence on left. Passes one large tree and four palms in line on the right and then three houses, San Juan, about 50 yards, also on the right.
- 68.1** Trail leaves San Juan 10° north of east parallel to wire fence on left (north) inclosing thick wood and guano palms. Trail well marked in brown sandy soil. Trail forks, right trail on higher ground for horses in wet season. Left-hand trail continues eastward parallel to fence on left which ends at 100 yards. Road becomes well worn and deeply rutted in places; abundant guanos on both sides. Large ant-hill about palm passed on right.
- 68.4** Road bends 20° south and extends 10° south of east to unoccupied house on the right, La Caridad.
- 69.1** Road continues in same direction, east, good road in red soil; scattered woods on both sides; 100 yards east of La Caridad pass fenced pasture 30 yards square, on left.

Road continues south and then southeast. Meets wood and wire fence on the left; 50 yards farther passes under very large tree with projecting roots, knotted trunk, and climbing vines. Also on left 50 yards still farther is the principal house of San Francisco de Sánchez, also on left (north) of the road. Another house, unoccupied, is 100 yards from the road to the northeast. Signs of high water 2 feet above the level of the road were noticed here. Leaves the finca 40° south of east and continues parallel to wire fence on left (north) for 75 yards to fork; left trail leads to San Diego, 2 miles to the northeast, and to La Merced, 2.5 miles east. Take right-hand trail which is not very distant at first, bends through scattered woods, meeting trails from the northeast (for San Diego and La Merced).

Miles from
Iguará.

69.9

Trail well worn in brown soil continues through scattered woods and abundant guanos in a generally southern direction, though bearing a little to the left (east). Enters strip of thick woods and crosses large dry run with sandy bottom, running east and west.

70.9

Trail rough for 100 yards beyond dry run; good parallel bridle trail on the right. Soil black and very hard. Signs of water over 3 feet high seen on the trees.

71.4

Trail in brown soil becomes sunken 1 foot; high ridges left in places; parallel trails; thick woods on both sides; abundant palms continue. Large dry run crosses, running northeast and southwest. Soil brown.

71.9

Trail continues, deeply worn in places; soil brown and black in places. Parallel trails in many places. Forest thick and parasites very numerous on trees.

72.4

Trail emerges from forest and bends to the right (west) through area of short grass, scattered trees, and abundant guanos. Principal house at San Joaquín seen against a background of bananas. Trail for the south and east (Ciego Montero and Caimancito) branches from the left toward the southeast about 100 yards from the house. The second house, also, is about 75 yards south of the principal house. Trail leaves gate by door of principal house and extends northeast about 30 yards to fork (left fork 2.7 miles to San Francisco de Sánchez, a little west of north). Take right fork, which runs 10° south of east, and, after joining another trail from the west, becomes a well-defined road with thick woods on the right (south) and open country with scattered guanos on the left.

72.6

Miles from
Iguará.

- 73.6** About 0.2 mile road bends to right 30° and runs 20° south of east. Well-marked wheel tracks in hard brown soil. Road becomes very winding and enters thick forest. Ruts well worn and parallel ridges in places. The yuraguano variety of palm appears on the right.
- 73.8** Soil becomes light and sandy. Road crosses dry run, running northeast and southwest, and forks. Main road turns east for Caimancito. Take trail running southeast.
- 75.3** Trail well worn in light sandy soil with wheel tracks indistinct, emerges from forest and turns south, crosses dry run running east and west, and enters country with scattered scrubby trees and guano and jata palms. View about 0.2 mile on each side.
- 75.8** Trail enters from northeast, crosses, and extends west of south 2.5 miles to the salt-water marshes of the coast. Group of yuraguano palms on right. Second trail 0.5 mile farther south enters from northeast (from Caimancito).
- 76.1** Pass open circular marsh on left (east) 0.7 mile in diameter, surrounded by guano palms. Yuraguano palms also abundant on both sides of the trail. Soil very sandy and land very flat.
- 76.6** Pass open circular marsh on each side of trail. Marsh on right (west) about 0.5 mile in diameter, while that on left (east) is about 0.2 mile in diameter. Grove of yuraguano palms also on right.
- 76.8** Trail inclines to the left (southeast). Guano palms become more plentiful and scrubby trees less abundant. Grass very short. Trunks of palms spotted with yellow, red, and brown lichens. Trail crosses large dry run, running east and west, sandy bottom.
- 77.1** Trail runs through large open circular tract containing very scattered palms and surrounded by woods. Sand very light color. Trail crosses second large run with sandy bottom, also running east and west.
- 78.1** Trail enters second circular open area larger than the former, containing scattered trees and palms. Crosses third large dry run, whose direction is northeast and southwest.
- 78.6** Trail continues southeast through area containing scattered scrubby trees, abundant guano and occasional jata palms. Trail runs 20° east of south, cattle trails enter from an equal number of degrees east of north,

Miles from
Iguarí.

and the trail turns south. On left (west) an open marsh about 0.2 mile in diameter surrounded by guano and yuraguano palms. View to right limited to 100 yards; on left, 0.7 mile. High royal palms seen in the southwest. About 30 yards farther and a slight turn in the trail shows one house about 300 yards to the south and another house about 160 yards to the southeast. Grove of guano palms on the right with line of tall royal palms behind them parallel to and about 100 yards from the trail. Trail now in open area extending beyond the houses with short grass and numerous guano palms. Large grove of royal palms seen on the southern horizon about 1 mile distant; smaller grove of guano palms visible in the southeast at about 0.2 mile. These two houses, Ciego Montero, are both occupied; are about 100 yards apart and surrounded by a fence. Leaves Ciego Montero as a well-worn trail in light sandy soil, parallel to and to the left of wire fence extending southeast from western house.

On the right passes through mango trees and gate in fence to field containing underbrush and scattered trees; on the left scattered woods and guano palms, and at 200 yards trail branches, running to other (eastern) house of finca; 100 yards farther trail still parallel to fence turns 10° to right and continues for 200 yards; 50 yards to left is circular marsh 200 yards in diameter surrounded by guano palms. Still parallel to fence trail turns 5° to right and continues as two well-worn parallel trails. View 200 yards on each side. **79.1**

Trail continues in light sandy soil through area of scattered trees and guano palms, and 300 yards to the right (east) is a grove of royal palms. At 200 yards a trail crosses dry run with sandy bottom and at 150 yards turns 35° to left (west) and then at 150 yards farther trails turn 15° also to left and extend still southeast and parallel to fence on right. **79.6**

Fence on right bends south away from trail, which continues southeast for 200 yards and then turns 25° to the south. View for 50 yards on the right and 0.2 mile on left through scattered trees and guano palms. Trail extends in straight line for about 200 yards and then for the same distance makes a double curve first to the left and then to the right. At the end of this curve a road showing wagon tracks and consisting of three parallel trails branches off and extends northwest. **80.1**

Miles from
Iguará.

Trail turns to right (west) and runs 15° east of south for 200 yards and then turns to right and enters scattered woods for 200 yards and turns south.

- 80.3** Trail continues south through area of scattered woods and guano palms for 100 yards, turns to right, and continues to within about 100 yards of grove of royal palms directly ahead. At this point a trail branches 40° south of east; a comparatively new trail not well worn here and not easily found in the grass. The main road continues 200 yards through the palm grove to the Arroyo Las Trancas, a branch of Río de los Güiros, with broken bridge impracticable for wheeled transportation; banks 1.5 feet high, water 1.5 feet deep, muddy bottom; width at bridge 20 feet—at ford 15 feet. A bridle path extends east from bridge parallel to river on left and crosses at a ford 300 yards to west. From the ford the path continues in winding manner to Las Trancas, but the route is impracticable for wheeled transportation at all seasons because of the rough trail, narrow clearing through the woods in many places, and the difficult ford. If the bridge over the Arroyo Las Trancas beyond the palm grove could be repaired, that route would be the shortest and best for wagons. Bridge is in state of total collapse, but abundant timber is at hand for constructing another bridge.

- 80.6** Trail in high grass through open country with few scattered trees surrounded by many guano palms, extends southeast about 75 yards and then turns 25° to the left (north); after 100 yards turns 15° to left (north) and passes east for 100 yards. Soil sandy, originally light but darkened by recent fires; wheel tracks faint; trail a new one. Trail turns 40° to right (south) and extends as a faint trail difficult to follow in high grass through more thickly wooded country for about 50 yards, to well-worn trail running 20° west of north to broken bridge across Arroyo Las Trancas. View of surrounding country 0.2 mile on right and 100 yards on left; 50 yards farther a dry run with sandy bottom, direction east and west, and very winding. Beyond dry run trail continues in the same direction.

- 81.1** Trail winding; in 250 yards crosses dry run whose direction is east and west.

- 81.6** Trail continues winding. After 150 yards Vertientes is seen 30 yards ahead, surrounded by wire fence. Road leaves Vertientes from eastern end of town parallel to

wire fence on the right at 25° north of east. Well-marked straight road in light sandy soil which becomes black mud and then light again.

Miles from
Iguará.

Scattered woods and guano palms on both sides. **82.1**
View 0.2 mile on right (south) and 200 yards on left (north). At 600 yards road crosses dry run, sandy bottom, running north and south and turns 30° to the right; soil becomes black; 100 yards farther road crosses another dry run parallel to first one. Road is well rutted.

Road turns left (northwest) 65° ; very sandy, well marked; at 150 yards gate in wire fence. At gate road turns 25° to right in white sandy soil with several well-marked parallel trails, through region of scattered woods and abundant guano palms. At 225 yards road reaches grassy open area 1 mile in diameter surrounded by guano trees. Trail continues northeast through this area. **82.6**

Road well worn in sandy soil with parallel trails and distinct wagon tracks, continues northeast through large grassy open area surrounded by guano palms for 250 yards, then turns 30° to right and extends southeast through region of scattered woods and guano palms; view on each side 0.2 mile. At 300 yards road turns to left 45° and extends northeast parallel to and 100 feet from river on right (south). **83.1**

Road continues northeast. Parallel trails in white sandy soil through region of scattered woods and guano palms. View 0.2 mile on right (south) and 200 yards on left (north). After 150 yards turns 20° to left, and after another 100 yards turns 10° to right; runs 400 yards through high grass with view 0.2 mile on each side, then turns 40° to right, runs east for 175 yards, then turns and runs slightly northeast. **83.6**

Straight trail, north of east through meadow, with view 0.5 mile on right (south) and 0.2 mile on left (north) for 600 yards, meets fence corner on right and parallels fence. On right (south) scattered trees and guanos with view of 100 feet. On left open marsh area 0.2 mile diameter; high grass. **84.1**

Road parallels trails in white sandy soil, scattered woods and guano palms, and at 200 yards reaches the finca of Domingo Díaz (or Vertientes de Domingo Díaz), two houses, fifty yards apart. **84.6**

Road continues parallel to fence on right and after 250 yards turns southeast through open grassy region; northeast of angle is grassy circular marsh 0.5 mile in diameter. **84.8**

Miles from
Iguará.

At 150 yards farther crosses dry run running southwest, with sandy bottom, and leads to Río Domingo Díaz; dry; steep banks 5 feet high, 25 feet wide, gravel; thickly wooded banks; good ford; in rainy season is largest stream emptying into the Estero de Vertientes. Beyond the river the road continues to the finca Trinidad de Miranda.

ROAD No. 5.

ECUADOR—VISTA HERMOSA—CAMAGÜEY—CUPEYES ARRIBA.

General direction: NW. Distance: 78.5 miles.

IN GENERAL.

1. From Ecuador as far as Vista Hermosa there is a fairly good dirt road, practicable for bull carts. From Vista Hermosa to Camagüey is a good metaled road, called the Santiago road.

2. Camagüey to Cupeyes Arriba.—From Camagüey to Mulato, road surface good in all sorts of weather. Country, open savanna. Gentle grades. From Mulato to Magarabomba, road surface good in dry weather and passable in wet weather with corduroy repairs, for which material is generally convenient. No difficult grades. Road easily followed from Camagüey to this point. From Magarabomba to La Sabanita, has the worst road of any section of this route, being absolutely impassable in many places during wet season.

IN DETAIL.

Miles from Ecu-
ador.

- Leave Ecuador going north, crossing the Najasa River on bridge 125 feet long, stone piers, 2 spans.
- 8.0 Cross stream Río Contramaestre, rough crossing.
- 10.0 Road goes up hill.
- 11.5 Vista Hermosa. Here enter metaled road.
- 12.5 A road from Diamante enters road.
- 17.5 Cross railroad (Cuba Company).
- 18.5 Line of hills to right. Road bears northwest. Re-cross railroads.
- 21.0 Pass Fort Diamante on left. Here a dirt road goes off to left; this road reenters metaled road at Vidot, and the two run practically parallel.
- 22.0 Cross Hatibonico River bridge and enter Camagüey. Proceed from Camagüey Hotel north on calle Nigia.
- 22.5 Road forks. Take left-hand road. Pass Fort de Rodas on right. Proceed short distance and cross old masonry bridge over Arroyo de Mendez. Water for

animals. Road again forks. Take right-hand road, which leads to top of hill about 1 mile out, commanding city. Miles from Ecuador.

Cross old masonry bridge, called Puente de Fundación, over Río Tinima. Water for animals. Pass San Ramón, Vista del Príncipe, and Cayo Jigüey. 24.0

Cabeza de Vaca. Road bears perceptibly to northwest. Pass location of old tienda known as El Otro Mundo, also pass Caunao Arriba and San Joaquín. 28.5

Small earth redoubt on left of and near road. Pass cantina de Pinto. 30.0

Caobillas. Store. Water for animals in stream in woods to southeast about 300 yards from road junction. Road forks. Keep left-hand road. 35.2

Small earth redoubt on left of and near road. 36.0

Small stream, Arroyo Aguas Muertas. No running water, except in rainy season. Water in places in dry season. Fit for animals only. 44.5

Mulato. Store. Road forks; take right-hand road. 46.5

Bad place in road. Ground low. Corduroying material abundant. 47.5

Bad place in road. Ground low. Corduroying material abundant. 48.5

Excellent water in place for animals on left of road. 49.5

La Candelaria. Avenue of royal palms on northeast side of road leads to finca of same name, about 500 yards distant. Land extremely fertile; black soil. 51.5

Magarabomba. Excellent place for watering animals in large slough. Has two canteens. Good camping place for a battalion. Branch roads lead north and south from here. Take central road to La Victoria. 57.0

La Victoria. Road enters forest. From Camagüey to this point road in general through open savanna; surface is good and road easily found. Road follows creek bed for about 1 mile and continues through forest 4 to 5 miles. 61.0

Las Delicias. Cross wooden truss bridge 100 feet long, over Arroyo Lázaro. Banks of stream difficult and abrupt; stream not fordable on account of banks. Good water. Here road will be found hard to follow; various branches will necessitate frequent questioning of natives in order to determine proper road. 65.0

Road passes north of swamp about 500 yards in diameter. Land from this point to Sabanita is of peculiarly bright red color. Frequent depressions of from 100 to 200 feet in diameter and from 1 to 10 feet deep 66.5

Miles from Ecuador. near road. Road enters forest again. Road surface through forest land is bad, except in dry weather; full of holes.

71.0 Sabanita. Fine well; good watering troughs. Camping place for battalion. Best well seen on route.

78.5 Cupeyes Arriba. Between Las Delicias and Cupeyes Arriba the following points are passed in order named: San Antonio de los Hoyos, San Diego, Sitio Nuevo, Pozo de San Diego, El Sitio, Veracruz, and Ramblazo.

ROAD No. 6.

MORÓN—CIEGO DE AVILA—DERRAMADEROS—LAS NUEVAS—JÍBARO.

General direction: SW. Distance: 60.7 miles.

IN GENERAL.

1. Moron to Ciego de Avila.—A good dirt road, practicable in dry season for all kinds of transportation. During rainy season practicable for light-loaded wagons from Ceballos to Ciego de Avila. Follows Júcaro-San Fernando Railroad.

2. Ciego de Avila to Jíbaro.—In dry season a good trail for mounted men or men marching on foot. Could be used by wheeled transportation only with great difficulty on account of steep banks to dry runs, and thick underbrush in road. In rainy season impassable except for horsemen and difficult for them on account of sticky mud and deep fords. From Los Negros to Jíbaro the trail passes through much marsh land.

IN DETAIL.

Miles from Morón. Leave Morón going south following the Júcaro-San Fernando Railroad. Road soft and marshy, especially between blockhouses 54 and 52.

9.7 Las Piedras. Between blockhouses 47 and 45 there are two parallel roads each equally good.

10.7 Manguito. From blockhouse 45½ to 41 the road is along the west side of the railroad track, and from blockhouse 41 to Ceballos there is a road on both sides of track.

14.2 Ceballos. Cross Arroyo Ceballos, dry in dry season.

17.2 Road passes through a mud hole at blockhouse 35.

18.2 Cross railroad near blockhouse 33.

20.0 Road to Lázaro López, via El Masio, branches off to northwest.

21.0 Cross Júcaro-San Fernando Railroad.

- Ciego de Avila. Road leaves Ciego de Avila by western end of calle Independencia from barracks occupied by United States troops, runs north of west over iron bridge over dry run (running south). Bridge capable of sustaining any army vehicle. Miles from Morón.
22.0
- Turns west, passing quartermaster corral and stables on left. 22.1
- Road forks. Right branch leads northwest 7.5 miles to Jicotea. Take left road which runs west of south. 22.4
- Road turns west and is accompanied on right by government telegraph line Ciego de Avila-Sancti Spiritus, 2 wires. 22.5
- Road turns southwest, leaving government telegraph line, which continues west. 22.7
- Crosses Cuba Company Railroad, single track, with railroad telegraph line, 1 wire, running 25° north of west. Good road; light sandy soil; between wire fences. Open country, high grass, underbrush and scattered guano palms and yuraguano on both sides. Continues in same direction south of railroad. 23.1
- Road turns to right and runs south of west. Dry run enters road on north, extends diagonally across road for 100 yards and turns off on south, beyond which soil becomes red clay. 23.2
- Cross dry run, Río Los Negros, running south; bottom muddy but firm; needs a little corduroy at foot of approach from east; otherwise no obstacle. Thick woods along river. Road continues in same direction through open country; pastures on right and left with scattered royal palms on right and guanos on left. View of 0.2 mile on both sides. 24.9
- Road continues southwest between wire fences; soil becomes light and sandy; scattered woods; guano palms; view 0.5 mile on either side. 25.0
- Road turns to right and runs south of west; soil becomes red; road well worn and sunken 6 to 12 inches; wire fences continue 20 yards apart; scattered woods; view 0.5 mile on each side. 26.0
- Road passes one house, Santa Lucía, crosses dry run with sandy bottom running south and continues south of west. 27.0
- Road turns southwest; brown soil; underbrush in road; thick woods on right, scattered woods on left (south). 27.3

Miles from
Morón.

- Road crosses large dry run (Río Jicotea) running south; stony bottom; banks 30 feet high; approaches so steep that loaded wagons must at least double if not treble teams. Road continues southwest; brown soil; overgrown with underbrush; between wire fences 20 yards apart; high grass and scattered woods on both sides. Road changes to light sandy soil and passes between two houses,
- 28.0** Pitajonal, small one on right, larger one 100 yards on left, with good well and watering trough. Road here joins well-worn road leading north 3 miles to Caguasal siding of the Cuba Company Railroad. Take south road which runs south of west, well-worn and rutted; underbrush in road; wire fences 20 yards apart. On right, open country; high grass; view about 1 mile. On left, underbrush and scattered woods.
- 29.0** Road forks, left branch runs south and then southeast. Take right-hand branch which runs west and then southwest; brown soil; woods on both sides.
- 30.0** Road double in places, soil red clay, continues southwest and then turns south of west. Wire fence on right (north). Thick woods on both sides, clearing 8 yards wide.
- 31.0** Continues south of west, same as above.
- 31.2** House standing in tobacco garden, El Carmen, west of which woods become scattered and road branches into three trails. Right trail leads 3 miles north to Magua; left trail leads south. Center trail taken which continues south of west. Soil becomes brown.
- 32.0** Trail bends southwest and enters thick woods.
- 32.6** Trail enters gate in wire fence, then crosses large, dry run, sandy bottom, running south, La Ceiba River, here called Río Las Vueltas, and then runs west of south through scattered woods; brown soil.
- 32.7** Trail crosses large, open field, high grass and scattered trees, and joins well-worn road on right (west) running northeast and southwest parallel to line of old fence posts on left, between which wire is missing in places.
- 33.0** Well-worn road turns south between fence posts into open field and then bends southeast. Care should be taken at this point to continue west of south on trail which leaves road to left and runs still parallel to line of old fence on left. Thick woods on right.
- 33.2** Trail continues south of west as above described.
- 33.5**
- 34.0**

- One house on left (south) La Furnia. Fork in road. Well-worn road turns left through gate and extends east of south through field. Take trail which branches to the right, extends west 100 yards, and enters thick woods, turns to right and continues northwest. Miles from Morón.
34.2
- Trail forks. Right-hand trail continues northwest. Take left-hand trail which runs south of west and becomes very winding. West of fork on left is gorge 25 feet deep, which forms natural defense of road to east. Trail continues winding through thick woods; red soil; gradually bends southwest. 35.0
- Winding trail continues southwest as just described. 36.0
- Soil becomes brown. Trail continues winding southwest as above. 37.0
- Trail turns west and runs south; soil becomes red. Thick woods on both sides continue. 37.6
- Trail meets wire fence on left, extending southwest. Straight trail continues parallel to fence on left (south) through thick woods on both sides. Clearing 4 yards wide; red soil. 38.0
- Trail continues southwest parallel to fence on left (south) as above described. 39.0
- Trail enters open space about 100 yards wide and continues southwest to gate in fence on left (south), about 100 yards beyond which (west) are two houses, Los Negros. From Los Negros gate, well-worn road extends northwest and enters forest, and extends east to principal house of Los Negros. Another well-worn road extends southeast to Júcaro. Fence extends west from gate and trail runs northwest to the two houses. Gate entered and east road taken through field. 40.0
- Road turns southeast and runs in straight line through field with high grass, scattered trees and guano palms on both sides; well-worn trail in hard, brown soil. Principal house of Los Negros seen 0.7 mile ahead, southeast. 40.2
- Gate of principal house of Los Negros. Fence extending east of north and south of west; excellent camping place; good well and watering trough; abundant wood, grass, and sufficient shade. Ruins of Spanish fort 50 yards north of house, closed, square, face 23 feet, parapet 2 feet high, ditch 3 feet deep; in poor state of preservation and overgrown with grass and underbrush. Two trails and a road extend from gate of principal house at Los Negros. One trail runs north 30 yards to old Spanish fort on left and then turns west of north. Other trail runs 41.0

Miles from
Morón.

- west and bends west of south. Take road which runs straight northwest leaving Spanish fort on right. Road well worn, grassy; brown soil; on each side high grass, scattered woods, guano palms, and view of 100 yards to thick woods.
- 41.5** Road becomes well rutted. View 50 yards on right, 200 on left.
- 41.9** Road turns to left and runs west.
- 42.0** Through open fields to gate in wire fence (extending northeast and southwest). From gate well-worn road leads southeast to Júcaro; the trail leads north and then northeast for Ciego de Avila; a trail leads north of west 100 yards to two other houses of Los Negros. Take the road which leads northwest.
- 42.1** Road forks. Right-hand trail leads north and, bending east, joins trail to Ciego de Avila. Left-hand trail runs south, bends west, and leads to other houses above mentioned. Main road taken, which continues northwest as well-worn road in brown soil through open country, and
- 42.2** then enters thick woods, turns to the left, runs west, crosses large, dry run with sandy bottom (Río Guaya-canes), running south into Río Los Negros. Banks 15 feet high, approaches steep, but practicable with double teams. Road now runs northwest, and at 42.4 miles crosses small, dry run, sandy bottom (Cañada de los Negros); banks 3 to 4 feet deep, no obstacle.
- 42.5** Road continues northwest to fork; right-hand road leads northwest; take left-hand road, which leads west as well-worn and rutted, grassy road in brown soil streaked with red. View 0.2 mile on right through high grass, underbrush, and scattered trees to forest. The Cañada de los Negros parallel to road on right for some distance. View to left 50 yards through woods.
- 43.0** Road bends to right, continues north of west, and then
- 43.2** west.
- 43.5** Road bends north of west to fork.
- 43.7** Left-hand trail cut through woods runs southwest. Take right-hand road, which continues north of west. Well-worn road and brown soil, thick woods, continue on left.
- 44.0** Road forks; left-hand trail runs southward. Take right-hand road, which continues north of west to
- 44.2** another fork. Right-hand trail runs northwest. Take left-hand trail, a well-worn, rutted road in brown soil. Between forks, woods on both sides scattered, with view

of 50 yards. West of second fork thick woods on both sides. Miles from Morón.

Road continues north of west; well worn in brown soil and rutted in places. Thick woods on both sides. Two tracks. 45.0

Two tracks run together in one road. 45.4

Road turns to left and runs west, woods becoming very dense. On right is bed of pond, 1 yard deep, 12 yards wide, extending north and south. Dry run leads into this depression; extends parallel to road on right. 45.7

Road turns to left and runs south of west still parallel to dry run on right; thick woods on both sides. Subsoil in this region is of red clay; surface soil a brown loam about 6 inches thick. 45.8

Road turns to right and runs west through thick woods parallel to dry run on right, as above described. 46.0

Dry run, which has been parallel on right, crosses road at right angles and extends south. Road continues west and then turns to left and runs south of west. 46.2

Road forks. Road on left runs east of south through thick woods. Take right-hand road, which continues south of west, meets wire fence on right, within which is clearing about 100 yards square, containing scattered trees and stumps overgrown with vines. Well-worn, rutted, road in brown soil continues south of west parallel to fence on right through thick woods to large, dry run (Río Mancadero), banks 6 feet high, bottom sandy, approaches practicable. The river runs south, and beyond it road continues parallel to wire fence on right through thick woods on both sides. 46.3

Finca Derramaderos, surrounded by two fences, outer wire, inner wood. Fifty yards to right (north) road forks. Left-hand road leads south 50 yards to wire-fence corner, from which trails extend parallel to fence at south-east and southwest; 160 yards from fence corner other house of same finca on left of road running southwest (said to lead to Palmarito 5 miles). Take right-hand road at the fork, which continues west through thick woods and from which two trails branch north and south. 46.4

Thick woods; road crosses trail running northeast and southwest. 47.1

Road bends slightly to left, soil becomes alternately brown and red, road becomes five parallel trails, woods become scattered, view of 100 to 200 yards on each side. 47.2

Soil contains no more red streaks, resumes brown color. 47.7

Miles from
Morón.

- Well-worn road, consisting as before of 6 parallel trails, and runs a little north of west through scattered woods and guano palms.
- 48.0 Road enters thick woods, turns to left, and runs west.
- 48.1 Road bends to left and runs south of west, brown soil, scattered woods, with view of 75 yards on each side.
- 48.2 Fork. Deeply sunken road in red soil joins from southeast. Take right-hand road, which runs west, sunken 1 foot; thick woods on both sides.
- 49.0 Woods become scattered on the right, view 100 yards.
- 49.5 Road becomes 5 or 6 parallel trails. On right wire fence inclosing pasture.
- 49.6 Large ceiba tree on right of road, which continues parallel to fence on right. Direction south of west; road rough in places on account of hard, black mud.
- 50.0 Road continues south of west. Hard, black soil, wire fence parallel on right, thick woods on both sides.
- 50.4 Forks. Right-hand road runs west. Take left-hand road, which continues south of west. Soil becomes brown.
- 50.9 Road turns to right, runs north of west for 50 yards and then turns to left and continues in former direction.
- 51.0 Road continues south of west, well worn in brown soil, rough in places; thick woods on both sides.
- 51.2 Fork. Right-hand road runs north, and likely unites with road which branches west about 0.5 mile back (east). Take left-hand road, which continues south of west. Good and well worn in brown soil; thick woods on both sides.
- 51.3 Wire fence on left parallel to road.
- 51.8 In opening in thick woods on left open country can be seen for 0.7 mile southeast and for 3 miles south.
- 52.0 Two good tracks, parallel, well worn in brown soil, continue south of west parallel to wire fence on left through thick woods on both sides.
- 52.4 One occupied house, La Sierra, on right 40 yards north of road, beyond which woods become scattered and road becomes sunken 2 feet.
- 52.5 Fork. Right-hand lane runs west of north to railroad. South of this fork is a store, 100 yards in rear of which is a house, part of Palmarejo. Take left-hand road, which continues south of west, is sunken, and descends downhill between wire fences about 15 yards apart.

Dry run, Río Las Nuevas (or Sabana Abajo), sandy bottom, approaches good, banks 12 feet high, and running southeast. Beyond it road crosses low marshy place for about 100 feet which would be impassable for all wheeled transportation during the rainy season and difficult for mounted men on account of soft, muddy bottom. Miles from Morón.
52.6

Road continues south of west, divides into two parallel roads, one of which is deeply sunken. Fences and scattered woods on both sides. 53.0

Parallel roads unite and cross bridge over Laguna de Sierra. Bridge 15 feet wide, 50 feet long, rudely constructed of wood and earth; at present in need of repair; abundant materials for the purpose in the vicinity. Stock are watered by being driven into the lagoon from left-hand side of east end of bridge. Water for drinking is procured about 50 yards north of bridge on east side of lagoon; should be boiled before drinking, as it contains a quantity of organic matter. If it is not stagnant, it is running too slowly to be detected. It is the only water in the vicinity in the dry season. 53.3

West of the lagoon the road, well worn and rutted, ascends a slight hill and then turns to left and runs west of south. Road continues west of south parallel to wire fence on left, well worn in brown soil, deeply rutted in places. Thick woods on right, high grass, underbrush; view 200 yards to 0.2 mile to left. 53.4

Road continues west of south parallel to fence on left, sunken 3 feet in red soil. Thick woods on right, on left underbrush and guano palms, with view of 0.2 mile. 54.0

Fork. Take right-hand road, which continues as above described, but with black soil in sunken road and wire fences on both sides; view 0.1 mile to left. 54.2

Parallel roads unite; small corral on left. Road continues in black soil, woods become more scattering on right, with view of 50 yards. 54.4

Lane leading from left (east) of road at right angles, 100 yards to one house (El Ojo de la Ramona), beyond which road continues as above, except that soil becomes red. 54.5

Road turns to right and runs southwest, soil becomes brown, thick woods on both sides. 54.6

Road continues turning to right, passes grove of tall guano palms on right, runs west and then north of west; soil becomes red. 54.7

Miles from
Morón.

- 55.0** One occupied house 50 yards to right (north) of road (Santo Dormeano), 50 yards east of which are two large royal palms. Another occupied house is to the southeast about 100 yards. Road leads a little to left and continues south of west as well-worn road in red soil, fenced on both sides, inclosing high grass and scattered guanós, with view of 100 yards on either side.
- 55.3** Road turns to left and runs southwest, brown soil, no fences, low swamp on left, with stagnant water about 6 inches deep. As road is low here for 200 yards, it is likely flooded during rainy season.
- 55.4** Road turns to right and runs west, fences on both sides inclosing high grass and guano palms. View 50 yards on right, 100 yards on left to line of woods.
- 55.6** Gate and road south 75 yards to occupied house (Las Nuevas), beyond which road continues as before.
- 55.7** Road turns to left and runs south of west; fence ends on left.
- 55.9** Road turns to right and runs nearly west; thick woods on left.
- 56.0** Well-worn and rutted road continues about west; soil is brown and then becomes red. Road divides and runs in two parallel roads, one of which is sunken about 3 feet in red soil. On right is wire fence inclosing scattered woods with guano palms, and view of 100 yards. Thick woods on left.
- 56.1** Low place in road, probably mudhole in rainy season.
- 56.3** Three shacks 75 yards to right.
- 56.5** Cornfield on right for 100 yards, beyond which road becomes double.
- 56.6** Road turns to right and runs northwest.
- 56.7** One occupied house, El Tamarindo, on right, beyond which is gate to lane extending northeast.
- 56.8** Road turns to left and runs north of west. One house on right (north) at 30 yards and another in same direction at 100 yards.
- 57.0** Two parallel, well-worn, and rutted roads continue north of west in brown soil; scattered woods on right, with view of 100 yards; thick woods on left; guanós on both sides.
- 57.1** One new house and store on right, Las Nuevas, beyond which is crossroads. Northeast road said to lead 4.5 miles to La Tinaja, fenced on both sides, banana groves and royal palms on both sides of the road. Southwest road, fenced only on west side, said to lead 12 miles to

the Embarcadero de Juan Hernandez. One house at 75 and another at 100 yards northeast from crossroads, making total of six houses and one store at Las Nuevas. Take road which runs north of west, well worn, brown soil, wire fences on both sides, open country, high grass, scattered guanos, and view of 0.2 mile on either side. Miles from Morón.

One occupied house on right of road, part of Las Nuevas; straight road continues, fenced on both sides; scattered woods, and view of 50 yards to 0.2 mile on right; open grassy country on left, with view of 0.2 to 0.5 mile; guanos on both sides. 57.2

Gate on right and road leading 0.2 mile north to six houses, old settlement of Las Nuevas, beyond which road continues as before. 57.7

Road continues in two parallel tracks in brown soil north of west. Wire fences, open country, high grass, underbrush, scattered guanos, and view of 0.2 mile on both sides. 58.0

Road turns to right and runs northwest; view of 0.1 mile on right. 58.1

Fork. Right road continues northwest and leads to Sancti Spiritus. Take left-hand road, running south of west. This is a bad road, in hard black soil, very rough except in a winding trail to the right. Wheeled transportation could use this road, if at all, with great difficulty at any season because in the dry season the soil is hard and in the rainy season this section is flooded and the mud would be likely too deep for army wheeled transportation, though by doubling teams it might be possible. Thick woods on both sides, wire fence parallel on left. 58.4

Bad road continues south of west parallel to wire fence on left. Black, hard, rough soil; low ground flooded during the rainy season. Winding path for horsemen on right. Thick woods on both sides. 59.0

Fork. Right, equally bad road of same character runs east of north through clearing in forest. Take left-hand road which turns left and runs southwest and is of same character as before. 59.1

Road somewhat better, not so rough. Meets wire fence on right and continues in same direction (south of west) between parallel fences 30 yards apart. 59.2

Road becomes good; soil black. On right woods become scattered and view gradually extends over grassy field from 50 to 100 yards. On left view extends 59.5

Miles from
Morón.

- over field containing grass, underbrush, and scattered trees from 50 yards to 0.5 mile.
- 59.7** Road runs slightly to left and continues southwest, view on each side becomes more extended, 0.2 mile to right and 1 mile to left.
- 59.9** Cross large winding dry run at right angles; grassy bottom 15 feet deep, 25 yards wide, steep sides, difficult crossing in dry season, necessitating doubling of teams for wheeled transportation. Probably large and unfordable river in wet season.
- 60.0** Good road continues southwest, black soil, parallel fences. On right scattered woods with hanging moss on trees. On left grassy field with scattered royal palms.
- 60.1** Cross large winding dry run at right angles, identical with the one at 59.9. Beyond dry run road turns to left and runs west of south, uphill for 25 yards and then level. On right rolling grassy country, view 200 yards; on left view over more level grassy country for 1 mile.
- 60.2** Road turns to left and runs southwest. Road a succession of small hills, light sandy soil, parallel fences. Large dry run, grassy bottom bends in near road on right and turns off again. On left one house 50 yards south, east of which is a stretch of bamboo 50 yards long, extending northeast and southwest. Underbrush and scattered trees with view of 50 yards to south.
- 60.3** Dry run which approached road on right, about 150 yards back (east) crosses road. Dry run and crossing same as described at 59.9.
- 60.4** Fork. Right-hand road turns northwest by large ceiba tree on right and 50 yards farther turns west. Take left-hand road, which turns west of south. From this point north is large open field for 0.2 mile. In other directions for about 200 yards is grass with scattered trees and scattered clumps of bamboo. About 100 yards to west is another large dry run extending south. Road well worn and rutted, gravel soil, royal palms and bamboo on right. On left scattered trees and underbrush, and the town of Jíbaro can be seen to the south.
- 60.5** Large dry run winds very near road and then bends away to east. On left Jíbaro can be clearly seen on opposite side of gorge.
- 60.6** Road bends to right and extends southwest and descends through deep cut down to winding gorge in

which the Río Jatibonico del Sur is flowing to southeast. Gorge is about 75 feet deep and 100 yards wide. River is about 50 yards wide and 18 inches deep; sand and gravel bottom, clear running water, approaches, particularly those on west (right) bank, so steep as to be impassable for wheeled transportation in present condition. On opposite bank (right) is the town of Jíbaro, pertaining to the province of Santa Clara.

Miles from
Morón.
60.7

ROAD No. 7.

PUERTO PRÍNCIPE—NUEVITAS RAILROAD.

General direction: NE. Distance: 50 miles.

IN DETAIL.

Leaving Puerto Príncipe (Camagüey) this road passes through a fairly level country well watered, fertile, and sparsely populated, crossing over many small culverts and trestles.

Miles from
Puerto Príncipe.

At a distance of 22 miles it enters the village of Las Minas. On the south of the railway is a small ridge. From here the road traverses a low, flat country which soon becomes almost swampy, but grows higher again and more rolling. Just before the village of Villanueva is reached a range of hills is skirted on the south of the tracks. After passing them the road enters the village above mentioned, where a small branch extends to Almendares. The road from Villanueva turns south, and, traversing a flat unsettled region, enters Nuevitas, its terminus, 50 miles from Puerto Príncipe. Twenty miles out of Camagüey is the American colony of Canet and Queen City, where fruits are under cultivation. At Lugareño and Minas narrow-gauge railways connect with sugar plantations. Six miles from Nuevitas and south rises a ridge of hills on which is located an American enterprise, San Agustín. At Nuevitas connections are made with Habana and coastwise ports. A light-draft steamer also runs to Piloto, giving easy access to the new colony of La Gloria.

22.0

44.0

50.0

ROAD No. 8.

**DOMINGUEZ—CIEGO DE AVILA—CASIMBA—LOS ANGELES—CUPEYES
ARRIBA—MORÓN.**

General direction: N. Distance: 52.5 miles.

IN GENERAL.

1. Dominguez to Ciego de Avila.—Dirt road, fairly good for light-loaded wagons and bull carts in driest season. In wet season wheeled transportation could only pass with the greatest difficulty on account of deep red mud.

2. Ciego de Avila to Cupeyes Arriba.—First 6 miles from Ciego good, unimproved road available for all transportation during dry season. Next 4 miles as far as Los Angeles it is winding trail through woods practicable for horsemen; difficult for wheeled transportation in dry season and likely impassable in rainy season. From Los Angeles to the camino Real, about 6 miles, it is a private trail passable for horsemen and difficult for wheeled transportation during dry season; impassable for wheeled transportation and difficult for horsemen in rainy season.

3. Cupeyes Arriba to Morón.—Unimproved dirt road practicable for all kinds of transportation in the driest part of the season; wet season extremely difficult if not wholly impracticable owing to soft mud and big mud holes.

IN DETAIL.

Miles from
Dominguez.

- Dominguez, a railroad siding. (From this place to Júcaro is a mere trail, practicable for horsemen in rainy season with difficulty.) Well water. Take road north.
- 0.5 House on left.
 - 1.0 Finca La Antonia on left; well water.
 - 2.0 Finca El Cedro; well water.
 - 2.2 Cross small stream, mud bottom and banks, easy approach, banks 3 feet high.
 - 3.0 Arroyo Menaderos, banks and bottom mud; banks 10 feet high; good approaches.
 - 3.5 Quince y Media.
 - 4.3 Pass on left La Sucursal Habanera. Well water.
 - 4.5 Pass La Vega on left. Small settlement.
 - 4.8 Trail leads off to left to El Caballo, 2.5 miles distant.
 - 5.3 Pass through La Carolina, halfway between blockhouses 18 and 19. A road leads off east to sugar fields of the Silveira Sugar Company. Continue on road parallel to railway.
 - 6.7 Pass blockhouse 21 and small settlement. Well water.

Cross Arroyo El Retiro; banks and bottom muddy; banks 7 feet high, approaches easy. There is a bridge east of railroad track. Miles from
Dominguez.
8.2

Cross small arroyo; mud banks and bottom; banks 3 feet high; easy approach; a bridge has been washed away. **9.0**

Cross Júcaro-San Fernando Railroad. From here a road runs direct to El Retiro. **9.5**

Cross Cuba Company Railroad east of station. Enter Ciego de Avila at southwest corner of town on calle Simón Reyes or calle José María Agramonte. Road leaves Ciego de Avila from northern extremity of calle Abrahán Delgado, passes 75 yards east of blockhouse 27 (first one on north side of town) and runs northeast; well-worn road, light, sandy soil, stony in places. **9.8**

Road enters lane, turns to right, passes occupied house, San Agustín, on left, runs south of east, passes through double swinging gate and continues in same direction; a straight well-worn road, stony in places, brown soil, between wire fences 12 yards apart. **10.0**

Road turns slightly to left, crosses Menchaca Creek, which here runs south, stony bottom, gradually sloping banks, ford 12 feet wide, nearly dry; approaches somewhat washed out, but practicable; clear pool on each side of crossing, good place for watering animals. Beyond creek wire fences diverge and then run parallel 100 yards apart. **10.5**

Road continues as above; thick woods on right, pasture on left. **10.8**

Fork. Left-hand road follows fence on left and runs 0.5 mile northwest to principal house of San Lorenzo, a finca. Take right-hand road, which runs east, crosses small dry run with sandy bottom running southeast, branch of Menchaca Creek. Beyond crossing road is sunken 3 feet. Turns to left, runs northeast as two parallel, winding, unfenced roads in brown soil. Thick woods on both sides. **11.0**

Continues northeast as heretofore. **11.8**

Road meets fence from southeast and passes one occupied house, San Lorenzo, on left, just beyond which is gate in fence extending west of north and east of south. Fork. Left-hand road extends north and becomes trail. Take right-hand road, which continues northeast in light sandy soil, well worn and rutted, scattered woods on both sides, and view of 50 to 100 yards. **12.0**

Miles from
Dominguez.

- 12.8 Road crosses small dry run, sandy bottom, beyond which road extends east and then bends to left and continues northeast.
- 13.0 Fork. Large palm between branches of road. Right road, on higher ground in red soil, extends north of east, with branches to Laguna Vieja, 0.5 mile to southeast; Salvia, 1.4 miles southeast; the camino Real (Ciego de Avila-Camagüey), 4.5 miles southeast; and to Guachinango, 3 miles to the northeast. Take left-hand road, which extends northeast, sunken in red soil at fork.
- 13.2 Trail branches from left and runs 0.2 mile to Rodaja, a finca.
- 14.0 Gate in wire fence extending northwest and southeast, just beyond which is one occupied house, La Puerta de Aguada, and fork. To the right of house well-worn road in light sandy soil extends north of west 100 yards to fork. Left branch continues in same direction to Palizada and Ceballos. Take right-hand branch, which extends east through forest of guano palms. Road turns to left and runs north of west through woods of scrubby trees and scattered palms, with view of 50 yards to right and 25 yards to left; 100 yards beyond, well-worn trail branches from right, extending east; road turns to left, extends northeast, with view of 25 yards to right and 100 yards to left.
- 14.2 Well-worn trail crosses road at right angles; 30 yards to southeast are two small vacant huts. Road turns slightly to left, extending east of north.
- 14.3 Road crossed by well-worn trail at right angles; 200 yards southeast of trail is occupied house, La Aguada. Road turns slightly to right, extending northeast.
- 14.4 Well-worn trail branches from left, extending northwest. Road continues as before.
- 14.6 Small trail branches from right, extending north of east to deserted house, beyond which road is crossed by dry run 6 feet wide, 3 feet deep, sandy bottom, approached by gradual slope. Beyond dry run road turns to right, running north of east through open country, with scattered guano palms and view 200 yards to right and 50 yards to left.
- 14.8 Road continues north of east, light sandy soil, as above described. After 100 yards road turns slightly to right and runs east.

Road crossed by well-worn path running east of north and west of south. Road bends to right and runs south of east. Miles from
Dominguez.
15.0

Road crossed by well-worn path running northwest and southeast, road bends to left and runs east through open country, with view of 50 yards to right and 100 to left. 15.2

Road continues in same direction, line of woods on each side closes into 25 yards; scattered guano palms. 15.3

Road meets well-worn path on right from west of south. Road turns to left and runs north of east, through scattered woods with palms. Road divides into two parallel tracks, soil changes to dark brown. 15.4

Parallel tracks unite, road turns slightly to left and runs northeast. 15.8

Deserted house on left of road, beyond which road turns to right and runs east 100 yards to gate in wire fence extending northwest and southeast. Beyond gate road turns to left and runs northeast through thick woods. 15.9

Road becomes a winding trail through thick woods, clearing 10 feet wide. 16.0

Road turns to right and runs east as above described. 16.1

Road turns to right, runs south of east for 100 yards to fork. Left branch runs north of east. Take right branch, which is equally worn and runs south of east through thick woods. 16.3

Path extends from left, running north to other fork of road. Road turns to left and extends east, crossing path running north and south. 16.4

Trail turns to left and runs north of east. 16.6

Trail turns to right and runs east, soil becomes dark red, and road continues through thick woods. 16.8

Road continues east same as above. 17.8

Very tall royal palm on left of trail, which becomes winding and continues east through thick woods. 18.4

Trail meets wooden fence corner on left and continues east parallel to and on right of fence inclosing cleared field of about 1 acre, beyond which trail continues east through thick woods as before. 18.5

Path branches from right and runs south 0.2 mile to Casimba; two occupied houses. 18.6

Trail meets corner of wooden fence on right inclosing open field. From this point one house of Casimba is 18.7

Miles from
Dominguez.

- seen to south and the other to the southeast across the field.
- 18.8** Fork. Right trail runs southwest parallel to fence on right to Casimba. Take left-hand trail which runs east as well-worn trail in red soil through thick woods.
- 18.9** Trail crossed by equally well-worn path running north and south, beyond which trail passes wooden fence on left inclosing banana grove.
- 19.1** Trail continues east through thick woods, path branches from left and runs north.
- 19.3** Trail passes field of burnt stumps inclosed by fence beyond which trail continues east through thick woods.
Trail continues as above.
- 19.8** Fork. Right trail runs south. Take left trail which
- 19.9** runs south of east to gate in fence extending northwest and southeast. Beyond gate trail forks; left-hand branch runs northeast and is direct trail for Cupeyes Arriba. Take right-hand trail, which runs southeast through large open field. Trail meets fence at gate, east of which is a house, Los Angeles; excellent water at this finca. From Los Angeles trail extends west of north parallel to wire fence on right inclosing field of underbrush and scattered trees. Open country on left with view of 0.2 to 0.5 mile.
- 20.8** Trail turns to right running east of north parallel to fence on right as described.
- 20.9** Road turns to left, runs west of north parallel to fence on right as described.
- 21.2** Trail turns to right, passes through gate in fence and runs east of north through open country with view of 0.5 mile to right and 0.2 mile to left.
- 21.4** Trail crossed by path running at right angles, beyond which trail continues as described.
- 21.5** Trail enters thick woods and continues in same direction. Trail joins from west, beyond which trail turns to right and runs northeast through thick woods.
- 21.8** Trail continues in red soil as described.
- 21.9** Trail passes through gate in wire fence running northwest and southeast, beyond which trail turns to left, running east of north. Fork. Left trail runs west of north. Take right trail, which continues east of north through thick woods.
- 22.0** Trail crossed by small path running north and south, beyond which trail turns to right and runs northeast.

Small thorny trees and scattered guano palms on both sides. Soil becomes brown.	Miles from Dominguez.
Trail crossed by small path running north and south, beyond which trail continues as described.	22.8
Trail turns to left and runs east of north; brown soil; palm forest on both sides.	22.9
Trail passes house on left, La Cabera, beyond which trail turns to right, running northeast parallel to wooden fence on left through thick woods and palms.	23.3
Trail passes through gate in corner of fence, turns to left, runs north parallel to and to the right of fence. Thick woods and palms continue.	23.5
Low thorny trees on both sides of trail.	23.6
Trail turns to right and runs east of north through forest of guano palms.	23.7
Trail turns to right and continues northeast as described.	24.0
Trail turns to left, running north; palms become scattered; view of 100 yards on both sides.	24.2
Trail turns to right and runs northeast; thorny trees and palms on both sides.	24.3
Woods become more open, view of 50 yards on either side.	24.4
Woods become thick, thorny trees and palms on both sides.	24.5
Fork. Left trail runs east of north. Take right-hand trail, which runs north of east; woods as described.	25.0
Path meets trail from west of south; after 100 yards trail turns slightly to left, crosses path north and south, and then turns slightly to right and continues north of east; country becomes open on both sides. View of 50 yards to scattered palms.	25.3
Trail enters forest of thorny trees.	25.4
Trail turns to left and runs northeast; open country on both sides, with scattered guano and corajo palms. View 100 yards.	25.5
Fork. Left path continues in same direction northeast. Take right-hand path, which runs north of east. Scrubby trees and guano palms on both sides, with view of 25 yards.	25.8
Trail turns to right and runs east, winding through thick forest of palms. Trail turns to left and runs northeast as above described.	25.9

Miles from
Dominguez.

- Fork. Left path continues northeast. Take right trail, which runs north of east through forest of jata palms.
- 26.3**
- 26.4** Small path crosses trail. Path crosses trail, beyond which trail turns to right and runs east through open country with scattered guano palms on both sides; view 100 yards to right, scrubby trees and view of 50 yards to left.
- 26.5** Trail meets camino Real (Morón-Camagüey) where it makes a bend to the east, and about 0.2 mile north of the junction are 6 graves. Just beyond the graves a small trail branches to the left and runs 0.1 mile to site of former finca known as Cupeyes Arriba. No house stands there at present and there is no house in the vicinity closer than Santa Lucía, 4.4 miles to the northwest. At junction of trail and of camino Real a trail also branches from the north side of the camino Real, leading about 5 miles to La Llanada.
- 31.0** At junction turn to right and follow camino Real to Cupeyes Arriba. Cupeyes Arriba consists of one small store and dwelling. The camino Real via Santa Lucía leaves just east of store at Cupeyes Arriba; good well-worn road in brown soil; scattered guano palms on both sides; view 0.2 mile to left and 100 yards to right.
- 31.1** Road turns to right; continues west of north as described. Trail branches off on right and runs northeast.
- 31.2** Trail branches from left, extending northwest 0.2 mile to gate in fence, 0.2 mile west of which is a finca, Vera Cruz, near which is good well and watering trough for animals.
- 31.3** Road turns to left and continues northwest, as described.
- 31.5** Road branches from right and extends northeast, said to lead to Cupeyes Abajo; beyond fork is fence corner on left and trail leading 0.1 mile south parallel to fence and the house Vera Cruz.
- 31.7** Pass 2 graves on right, road then turns left and runs north of west, still parallel to fence on left. View 50 yards on either side.
- 32.1** Fence on left leads off southwestward; road continues its direction of northwest through forest of guano palms.
- 32.6** Road turns slightly to right and continues west of north through palm forest.
- 33.0** Trail branches from right and runs east. Road continues northwest through forest of guano palms. Road

turns to left and runs west, as described. Road turns to right and runs north of west, as described. Miles from Dominguez.

Road turns slightly to right and continues north of west, 33.8
as described.

Road splits into two parallel tracks, good, well worn, 34.0
and continues north of west through guano forest, with
view of 50 yards on either side.

Road crosses well-worn trail running north and south 34.4
and continues in same direction; brown, sandy soil.
Road crosses well-worn trail at right angles and contin-
ues in same direction through guano forest.

Road crosses well-worn trail running north of east and 35.0
continues northwest; on right thick woods, thorny bush,
and guano palms; on left scattered guano palms and view
of 150 yards.

Small fence inclosing 6 graves on left. Road turns 35.4
slightly to right and runs northwest. Road turns to
right and runs northwest; on both sides thick woods, 35.7
thorny bushes, and scattered guanoses.

Road turns to right and runs west of north; soil be- 36.0
comes hard and black, swampy in wet season; otherwise
as described. Road turns slightly to left and continues
west of north.

Road crosses well-worn trail at right angles, turns 36.5
slightly to left, and continues west of north. Guano
forest continues on both sides.

Road turns to left and runs northwest through flat 36.6
country, swampy in wet season. On right guano forest;
on left scattered woods and palms.

Road turns slightly to left and continues as described. 36.7

Road turns slightly to right and continues northwest; 37.0
on right thick woods; on left scattered woods.

Soil becomes black; forest of guano palms on each side, 37.4
and view of 50 yards.

Well-worn and rutted road branches from right and 37.6
runs east, said to lead to La Yanda (hacienda) about
2 miles. Beyond fork road continues in same direction,
northwest, excellent road; on right thick woods and scat-
tered palms; on left guano forest.

Road turns slightly to left and continues northwest. 38.1
Thick woods and scattered guano palms on both sides.

Road turns slightly to right and continues northwest 38.3
through scattered woods and guano and corajo palms.

Small fence inclosing 1 grave on left of road, which 38.7
turns slightly to right and continues northwest. Thick

Miles from
Dominguez.

- woods with scattered guano and corajo palms on both sides.
- 38.9 Road turns to left and runs north of west in forest of guano and corajo palms; view 50 yards each side.
- 39.2 Road turns to right and runs west of north through open country, scattered guano and corajo palms. View 100 yards on right and 300 yards on left.
- 39.6 Road turns to right and runs north. Soil becomes red; view 200 yards on right.
- 39.7 Fork. Left branch runs northwest to west of house at Santa Lucía and is the road for Ciego de Avila via Santa Ana, San Pedro, Paradas, La Carolina, etc. Take right branch (camino Real) which runs east of north. Thick woods on right; open country with scattered trees and underbrush on left. House at Santa Lucía seen west of north.
- 39.8 Road forks. Right road leads through thick woods at right angles eastward about 1.5 miles to finca of three occupied houses, Ojo de Agua. camino Real continues northward. Branching from left is trail which runs 100 yards west to occupied house back of grove of large mango trees, Santa Lucía.
- 40.1 Road turns slightly to right and runs east of north, deeply cut in places, well worn and rutted; soil becomes brown; fence continues on right; thick woods on both sides.
- 40.2 Road turns to left and runs west of north; fence continues on right; on both sides scattered woods, guano and corajo palms.
- 40.3 Road turns on left and runs northwest; excellent road in red soil; fence continues on right; scattered corajo and guano palms on both sides; underbrush on right and scattered royal palms on left.
- 41.0 Road continues northwest, but becomes winding, soil red and stony for 200 yards; fence on right ends; thick woods on both sides.
- 41.8 Road turns to right, runs west of north, and continues as above.
- 42.0 Road turns slightly to left and continues northeast, as described.
- 42.2 Wooden fence on left, inclosing cleared field with many stumps. Just beyond this field the road turns to right and continues northeast, still parallel to wooden fence on right, which incloses scattered woods and underbrush.

Road turns to right and runs north of east; meets new fence on right, to which it continues parallel. Large ceiba tree on left, near which is trail running north about 75 yards to southernmost house of La Trinidad. Miles from
Dominguez.
42.3

Road turns to left and runs northeast. 42.4

Road turns to left and runs north of east between parallel wooden fences. On left, one deserted house. 42.5

Gate in fence on right and one occupied house 75 yards east of road, Los Dolores. Road turns to left and runs north between parallel wire fences. On right underbrush and scattered guano palms; on left open grassy fields with guano and corajo palms and view of 0.2 to 1 mile. 42.7

Store on left. This is the southern boundary of a finca known as La Trinidad, and separate fincas which bear particular names. This store is called La Alegría. From this point distant mountain is seen to the north-east (probably the Sierra de Judas de la Cunagua). About 20 yards beyond store lane branches to the right extending east, beyond which camino Real turns to right and runs east of north, unfenced, in thick woods. 43.2

Gate in fence on right and trail leading 75 yards east of deserted house to the right, south of which another path leads 0.2 mile southeast to one occupied house, Eden. Beyond gate road turns to right and runs north through thick woods. 43.5

Fence and gate on left with trail leading 75 yards west to one occupied house, La Alegría, beyond which road turns to right and runs east of north between parallel wire fences. On right scattered woods and view of 50 yards; on left high grass. 43.6

Road turns slightly to right. 43.7

Fence on right ends and thick woods begin; on left parallel wire fence continues, beyond which is palm forest. 43.8

Road turns slightly to left and continues east of north through thick woods. 44.2

Road turns slightly to right and runs east of north; parallel wire fence on left continues; thick woods. 44.5

Road turns to left and runs west of north. Well-worn road branches from right and runs southeast through thick woods, beyond which road turns to left and runs west of north. On right thick woods continues; on left parallel wire fence, inclosing field of thick underbrush. 44.6

Miles from
Dominguez.

- Well-worn road branches and runs southeast, said to lead to Puyu, Santa Bárbara, and Manaca, beyond which road turns to left and runs northwest.
- 44.7
- 44.8 Gate in fence on left and trail 100 yards southwest to one occupied house, Sao de Barredo. Another trail also runs northeast to one occupied house, Onyocorojo. Beyond this point road continues in same direction through thick woods parallel to wooden fence on left.
- 44.9 Road turns slightly to right and continues northwest, unfenced.
- 45.1 Road turns to left and runs south of west.
- 45.2 Road turns to right and runs north of west.
- 45.5 Road turns slightly to right and continues north of west through thick woods with scattered guano palms.
- 45.6 Well-worn road branches to left and runs east of south through thick woods; beyond fork camino Real continues in same direction.
- 45.8 Road turns to right and runs northwest.
- 46.1 Gate in fence on left and trail which extends south of west to three houses, El Caracol, one of which is visible from the road. On right banana grove; on left thick woods. Road continues in same direction; fences on both sides. Trail branches from left and runs southwest parallel to fence on left and leads to other houses of El Caracol. Road becomes winding, soil brown, thick woods on both sides.
- 46.2 Road turns to left and runs north of west, deeply rutted in places.
- 46.7 Good road, thick woods on both sides.
- 46.9 Trail branches from right and runs northwest; road continues in original direction; on right woods become scattered, giving view of 50 yards.
- 47.1 Road continues as before, ground becomes low, flooded during rainy season.
- 47.4 Road in two parallel tracks continues west in soft brown soil, unfenced; flooded during rainy season; scattered woods on both sides, with view of 50 yards.
- 47.8 Road meets branch from southeast from Horconcito, 2 miles.
- 48.6 Chillantes, two occupied houses on left.
- 48.7 Fork. Left-hand road leads south. Take right-hand road, which turns slightly to the right and runs west of north; good road, in brown soil, with thick woods on both sides.

Sunken area; large mudhole in rainy season. Road circles around to left and continues in same direction as before. Miles from Dominguez. 48.9

Road turns slightly to right and runs north; thick woods on both sides. Clearing in woods for 100 yards passes on right. 49.0

Road passes through sunken area, which forms large mudhole in rainy season; likely impassable for loaded wagons and artillery. Abundant woods for corduroying this place. 49.4

Brown soil; road turns to right and turns east of north. 49.9

Road turns slightly to right, sunken in places, soil red; view of 50 yards each side. 50.4

Road turns to right and runs north; 50 yards on left is a sunken area, probably a pond in rainy season, 50 by 200 feet. Road continues as above. 51.4

From this point house tops of Morón can be seen east of north and blockhouse near railroad is visible in the west. Road meets wire fence on left. 51.8

Road continues as described between converging wire fences, with view of 30 yards to right and 1 mile to left. 51.9

Road enters large open space; sawmill 100 yards to northwest. Road continues 25° east of north, parallel to fence on right; fences now 25 yards apart. 52.9

Road crosses Júcaro-San Fernando Railroad at blockhouse 61. Railroad station on left. 52.3

Town of Morón, southern end of calle Martí. 52.5

ROAD No. 9.

CIEGO DE AVILA—JATIBONICO (PORTION OF OLD CAMINO REAL).

General direction: W. Distance: 36 miles.

IN GENERAL.

The road is part of the old highway from Habana to Santiago de Cuba, and has never been improved by the hand of man, at least not within a number of years. In many places it is cut up by bull carts and even comparatively smooth places are rough for wheeled army transportation owing to the difference in width of trace of bull cart and army wagon.

In dry weather this road is practicable for bull-cart transportation and for pack transport, both native and American.

In wet season any kind of transportation, except lightly charged pack transport, is out of the question.

From Ciego, first 1.2 miles toward Jicotea are good, road then becomes rough at 2.2 miles; there is a mud hole in which 4 mules and wagon went down and had to be hauled out. This mud hole is followed by 2 miles of soft ground impracticable in wet weather; from there on the road as far as Jicotea passes over undulating ground, with mud holes and rough ground between undulations. From Jicotea to Guayacanes (finca, not railroad station of same name), as far as the Cuba Company Railroad crossing, the road is much cut up and washed out; has part of the way a regular creek bed in the middle and is in horrible condition. From 0.5 mile before reaching Guayacanes to the crossing of the Guayacanes River the road is a smooth prairie road. It now enters upon red soil with lime and stone, and passes through woods to Río Grande, distance about 4.5 miles.

This stretch is in bad condition; the road is cut with ruts 2 feet deep and now hard as rock; occasional mud holes add variety to the difficulties. It is a bad piece of road, and defies description.

From the Río Grande to the Jatibonico the road is fair, with the following objections: After passing Limones the road crosses the low flat, which is half a mile wide, of the Arroyo Limones; the road here shows ruts 2 feet deep and practically one continuous mud hole, utterly impracticable for army transportation, except pack. At Guanabo there is also a piece of soft ground. On reaching the crest of the last hill overlooking Jatibonico the road descends abruptly and steeply for 300 yards and from the bottom of hill to Jatibonico crossing is very rough and a succession of soft ground and mud holes cut up in every direction by ruts.

IN DETAIL.

Miles from Ciego
de Avila. Leave Ciego de Avila by calle Independencia, leaving Cuartel on right, and follow camino Real west between wire fences.

- 0.1 Cross small rill over bridge of rails.
- 0.3 Road branches, left branch going off at right angles and after two more turns crosses Cuba Company Railroad. Follow right branch, pastures on both sides of road.
- 1.0 Fences continue, fine guinea-grass pastures on right and scattered trees. On left pasture and denser brush merging into open wood. Range of vision on either side, 600 yards.
- 1.5 Cross Los Negros Creek, 10 feet wide, 4 inches deep, clear water, 10 feet below grade level. Approach from east, soft, and in wet weather needs corduroying (trees and brush in plenty on spot); western approach hard, rough, and washed.

Fences continue, open pasture lands on both sides with scattered trees and guanos, some palms. Farmhouse on left, with square mile of open ground fit for camp site. Miles from Ciego de Avila.
2.0

Mud hole all the way across road, sticky, miry, and dangerous. Turn it by going through fences on left 200 yards before reaching the hole and rejoin road at next farmhouse, 500 yards distant. Road now goes over soft ground, dry now and exceedingly rough; until decided undulations are reached the road in wet weather is continuous mud hole. 2.2

Farmhouse on right with pasture. Range of vision, 200 yards. On left telephone line of rural guard to Jicotea; guinea grass and high brush. Road continues rough. 3.2

Road continues rough and turns northwest. On right farmhouse and palm-grove, on left pass well and tree, large ceiba trees. 4.0

Ground begins to rise, road getting stony, native shack on left known as Medio Peso (Cantina), and 300 yards farther a house on right known as Palmarito. 4.5

Road continues rough over successive low swells of ground, with bad mud holes between them. Wire fences continue. Country now open to view for several miles, pasture, well drained camp sites in every direction, but no water. Traces of Spanish trenches on left of road. 5.0

Road turns to southwest, continues, rough, with deep ruts, over slightly undulating ground, falling away to the southwest. Ground on right open for 600 yards, pasture; on left wide, open, rolling country, pasture, camp sites. 5.5

No change. 6.0

Fences continue. Farmhouse on right called Las Nuevas. Pasture with scattered trees on both sides; woods begin to draw in toward road from both sides. 6.5

Cross Jicotea Creek (Río de las Vueltas), clear water, 8 feet wide and 4 inches deep, good bottom; eastern approach rocky and rough, but practicable. 7.0

High brush has closed in on road from left, on right open pasture and vision for 1,000 yards. 7.5

Jicotea, scattered village; telephone. Remains of Spanish entrenchments just outside of town (east). In the town Spanish barracks for one company; is in ruins. At western exit of town trace of Spanish stockade. Rural guard barracks will shelter 50 men. Road to Jicotea evidently strongly guarded by Spanish. The rolling country east of Jicotea contains enough well-drained space to camp a division; no water except Jicotea Creek, 8.2

Miles from Ciego
de Avila.

- which, however, seems good. Continue on road through Jicotea, west; 300 yards outside of village road comes in
- 9.0 from left (south) and at 9-mile road forks, right fork leads to Lázaro López (Angel Castillo). Take left-hand road, which turns southeast and at once becomes rough.
- 9.5 Cross Arroyo Colorado, clear water, approach from east rocky and rough, but practicable, though abrupt; west bank lower; road so badly cut up by bull carts that wagon can barely pass without upsetting; creek bottom firm, 10 feet below grade.
- 10.0 Since crossing creek, road has been ascending high ground. Road to Hato Viejo to right. Road is rough and shows depression in center, which gradually develops
- 10.5 into regular creek bed; immense bull-cart ruts. Country on both sides uniformly open pasture with scattered trees and bushes.
- 11.5 Cross Cuba Company Railroad. Country flat and open in every direction, road getting fair.
- 12.5 Road good, no change in character of country.
- 13.0 Pass under government telegraph line, two-wire, Ciego de Avila-Sancti Spiritus. Traces of Spanish trenches on left. Road good and hard, soil sandy, no ruts.
- 13.5 Road good, Guayacanes finca on left, road on right to Guayacanes station.
- 14.5 Road continues good, country less open, woods approaching road 1,600 yards.
- 15.5 Crossing of Guayacanes stream (or Arroyo Corrales), 12 feet deep below grade, clear running stream, eastern bank steep, western approaches more gentle and somewhat washed out. Crossing practicable for wagons. Road becomes less good and is now running in a clearing 300 yards wide and with grass and brush.
- 16.0 Large clearing on left, soil getting red and thin, rocky. Woods close in on road from right.
- 16.2 Road enters woods, rough with immense bull-cart
- 17.0 ruts, hard as iron, rock and mud holes.
- 17.5 Road continues bad as heretofore, woods open slightly.
- 18.0 Large clearing on left overgrown with brush, road continues extremely rough.
- 19.0 Condition of road unchanged, clearing on left, San Jigüey finca on right. Wood choppers' camp; 100 yards beyond the road enters the woods, becomes narrow, and for 1 mile to the Río Grande is simply a continuous mud

hole, cut into deep ruts and now dry and hard, extremely rough. Miles from Ciego de Avila.

Hacienda Los Rincones to the right. Crossing the Río Grande, 80 feet wide, clear water running over bare broken up limestone, 6 inches to 2 feet deep, 5 feet below grade; eastern descent to ford, 4 feet, rather abrupt, and may need doubling of teams on eastward trip. Ford crosses obliquely upstream for 100 yards over rough rock bottom strewn with stones and bowlders, ascends right bank over easy approach, turns south, and 500 yards from river emerges into clearing. 20.0

Road from left crosses our road at right angles leading to Los Rincones. (Is very bad for 1,000 yards through wood.) 20.5

Woods recede from both sides, large, open, grassy (poor grass) plain with brush and small bunches of trees. Soil getting a little sandy, road dry and excellent. Road forks, right-hand road leads to Las Casitas. Take left-hand road, which is rather dim. 20.7

Road level and smooth like on our prairies, with bridle path as main index of road, scattered trees and bunches of trees, range of vision 1,000 yards. 21.0

Road passes through strip of wood 500 yards wide, but remains good. 22.7

Emerges from wood and 200 yards beyond becomes a little stony, and so continues to 23.7-mile point. 23.0

Here white gravel forms the soil, country level, open, with bunches of trees; 300 yards before reaching Limones fence begins on left, and from there to house road in wet weather is miry. 23.7

Limones; finca. Here soil suddenly becomes red and also rocky, the rocks cropping out of the ground and making road very rough for first 300 yards, when it becomes good again. 24.0

House on left still belonging to Limones. Road here turns to right (northwest) while descending into low ground 0.7 of a mile wide through the middle of which flows the sluggish, muddy, Arroyo Limones. Road to crossing of arroyo is continuous mud hole with deep ruts. 24.7

Cross Arroyo Limones, approaches from both sides good, that on left bank apt to be muddy in wet weather, but can be quickly corduroyed from material on spot. Water 5 feet wide, 3 inches deep, bottom muddy, but firm, water dirty, and fit for cattle only. On right bank 25.0

- Miles from Ciego de Avila. road continues through woods, cut into deep ruts and narrow, continues in that condition over gentle rise of a few feet, descends again to lower ground (mud hole in wet weather).
- 25.5** Road ascends to higher ground emerging on open vega with guano palms and mimosa trees and bushes. Road now good to Quemado Grande.
- 25.7** Mud hole in bunch of guanos, can easily be turned.
- 26.0** Pass under government telegraph line (Ciego de Avila-Sancti Spiritus, 2 wires), soil gravelly and loose, 6-inch ruts in road, crosses two little rills, now dry, before reaching Quemado Grande. These two rills are no obstacle.
- 27.0** Finca Quemado Grande. From Quemado Grande road is rough for 0.7 mile west.
- 27.2** Road comes in from northeast. (Trilladeritas.)
- 27.5** Dry mud hole.
- 27.7** House 300 yards to right (Madrigal). Road descends about 12 feet to lower ground with red soil and stones, and continues to descend gently as far as Guanabo.
- 28.0** Road enters open forest of corajo palms, filling a strip about 300 yards wide through the woods. The road is firm and hard, though a little stony, and must be good even in wet weather.
- 29.5** Road comes in from southeast.
- 30.2** Road descends to lower ground with black soil, ruts, rough. Mountain north of Jatibonico in sight on right, 0.5 mile in front view is barred by hill. Fence on left.
- 30.5** Cross sluggish Arroyo Guanabo. On crossing the arroyo the road turns at right angles to left (south) and for 500 yards ascends hill (loaded wagons need double teams), and reaches top of plateau with grass (poor) and guanos, vision 1 mile. The road here is hard, smooth, and level for 2.5 miles, until ground becomes undulating.
- 33.0** Terrain begins to undulate, road rough, mud holes between undulations in wet weather, washed out along slopes, rough from now on to Jatibonico River.
- 33.2** Road over rough descent reaches Ojo de Agua, finca; on the right, one house; enters woods for quarter of a mile, emerges in large clearing on left, skirts wood on right, and ascends hill overlooking Jatibonico valley. Just before reaching top of hill a road comes from south-east (from Cachopo).

Top of hill, wide view to north, west, and south; 200 yards to right of road Majagua, a finca, part of Jati-
bonico sugar plantation. Here traces of Spanish trenches. Road, now between wire fences, descends hill at right angles, very steep slope for 300 yards; loaded wagons need, at least, double teams. From bottom of slope road is black, rich soil, rough, cut with ruts; in wet weather continuous mud hole fatal to wheel transportation. Miles from Ciego de Avila. 35.0

Dry arroyo, black soil, cut up and washed out, can be crossed on left with doubled teams. Road continues bad as heretofore and is choked with driftwood thrown there by Jatibonico River in freshet. 35.5

Crossing of Jatibonico River at finca Juan Gómez. Government telegraph line (same line heretofore referred to) here crosses river to Pelayo (0.5 mile on other side). Banks steep and 50 feet high; water clear, and swift current. Bottom of ford level and firm; small stones. In descending from east road turns to left (south); first half very steep and so washed out that wagon can not pass without upsetting; soil silt; lower half of eastern approach practicable, deep in mud. Ford 25 feet wide and 6 inches deep, very good. Western approach (right bank) steeper. Road ascends in southerly direction, and when it reaches steepest part turns abruptly about 125° to northwest. With skillful drivers wagons may come down this slope, but a succession of heavy wagons would rapidly push away this silt from the outer edge of the turn and the wagons on making the turn would turn over. This crossing is a good one for pack transportation, but should on no account be risked by wheeled transportation of any kind in its present condition. 36.0

ROAD No. 10.

SAN GERÓNIMO—VERTIENTES—RIOJA—LA UNIÓN.

General direction: SW. to Vertientes and E. to Unión. Distance: 47.6 miles.

IN GENERAL.

A very poor road in wet season and fairly good only in dry season. From San Gerónimo to Vertientes is poor land for the most part, and studded with a scrubby growth of palms. As you approach the coast the road gets worse and numerous low places are to be seen on every side.

From Vertientes to Rioja is a tract that would be absolutely impassable in the wet season; is wet in some places even during the greatest drought period. Water very scarce in dry season, and that of good quality is to be had principally from wells. The highways from Vertientes on are not strictly such in the true sense of the word, inasmuch as here and there they are obstructed by fences, and it seems to be assumed that each traveler will let down the bars and put them in place again. As more and more estates become fenced the highways in this section will change. In some instances wire fences have been built across what once evidently used to be a highway, thus necessitating a change in the road to avoid the fenced area. These roads seem to be very little used. The mosquito and a very small gnat (known as *jején*) are to be found in great numbers along the south coast even in the very driest weather, and are in such numbers as to be a veritable plague. The roads are practicable for lightly loaded bull carts, except as noted above; also for lightly loaded wagons most of the way to Vertientes.

IN DETAIL.

Miles from San
Gerónimo.

- Proceed from San Gerónimo on road due south.
- 0.4 Road changes direction southwest, which is maintained through open savanna land for about 2.5 miles.
- 3.0 Direction from this point to coast is generally west.
- 5.6 A very fair camping place for a battalion. Lagoon on right of road has fair water. Small supply of wood. No more camping places near road till coast is reached.
- 14.3 Stream, which is dry except at places a few hundred yards to left of road.
- 15.3 House. Good water plentiful near house. Road up to this point not difficult to follow, although not fenced.
- 16.4 Trail to south leading to Rioja.
- 18.3 Vertientes. Two houses occupied; the remaining three or four are dilapidated. Has the remains of an old Spanish earthwork on east side; this is a tumbled down sort of mound of earth 10 or 12 feet high and about that thick at bottom. Land low and marshy even in dry weather. Hills to north and west a few miles. All land toward coast very low. Proceed from here on trail due east, which changes southeast at point about 0.5 mile from Vertientes.
- 22.0 Stream, with good water in pools. No flowing water at this season (April). Other streams encountered since leaving Vertientes are dry. Road here changes to southwest for about 1 mile, thence east about 0.7 mile, when a change is made toward northeast, which general

direction is maintained until La Unión is reached. Numerous fences are encountered en route, but all are provided with bars at points where they cross the roadway. Miles from San Gerónimo.

Woods begin, and continue for 2 miles. Small wooded areas heretofore encountered. Wells from this point on are good and have ample supply of water. 22.1

La Unión, on Habana highway. A store at this point. Road to east to Camagüey; to west to San Gerónimo. 47.6

ROAD No. 11.

IGUARÁ—ARROYO BLANCO—SAN FELIPE—NANGÚ.

General direction: NE. Distance: 29.2 miles.

IN GENERAL.

Passable for wheeled transportation from Iguará to Arroyo Blanco. Passable from Arroyo Blanco to Nangú for bull carts, but only with great difficulty. This part of the road passes through the foothills of the Sierra de Jatibonico, and the only class of transportation used by the natives is pack transportation.

IN DETAIL.

Road leaves Iguará running east.

Road crosses the Arroyo Zurrupandilla, a stream 30 feet wide and 1 foot deep at ford; banks 25 feet high and 100 feet across; approaches steep, narrow, and badly washed out, and would need cutting away and widening to allow passage of wagons. From the Arroyo Zurrupandilla to the first crossing of the Arroyo Blanco (same stream) the road is overgrown, cut up with ruts, and filled with numerous mud holes. Passable for wheeled transportation only during a very dry season.

Road crosses the Arroyo Blanco (Arroyo Zurrupandilla), here 30 feet wide and 1 foot deep at fork, clear running water, gravel bottom, bank 6 feet high, south approach good, north approach steep, narrow, and washed out and would need cutting away and widening to allow passage of wagons. 0.9

Telephone line of rural guard, 1-wire, from Arroyo Blanco turns south toward Jatibonico. 5.6

Miles from
Iguará.

- Road crosses the Arroyo Blanco. The banks at this point are 20 feet high and 50 feet across; approaches steep, narrow, rocky, and badly washed out; would need cutting away and widening to allow passage of wagons.
- 7.5 Arroyo Blanco.
- 9.4 Road crosses small stream, 10 feet wide and 6 inches deep, clear water, hard mud and sand bottom; west approach good; east approach, steep, narrow, rocky, and badly washed out; would need cutting away and widening to allow passage of wagons. From Arroyo Blanco to this point the road has numerous steep grades, is very rough, rocky, and washed out; passable without very much difficulty for lightly loaded wagons. From this stream to San Felipe the road is only used by pack transportation, and is so rough and overgrown that it would be very difficult to take even bull carts over it.
- 10.4 Road crosses dry run, rocky bottom, banks 30 feet high and 40 feet across; approaches steep, narrow, and washed out; would have to be cut away to allow passage of bull carts.
- 10.8 Road crosses dry run, rock bottom; banks 20 feet high and 40 feet across; approaches steep, narrow, rocky, and washed out; present condition impassable for bull carts.
- 11.0 Road crosses dry run, rocky bottom, banks 25 feet high and 50 feet across, approaches steep, narrow, rocky, and washed out. Impassable in present condition even for bull carts.
- 12.1 Road crosses small stream, 6 feet wide and 6 inches deep. Nearly dry, gravel bottom, banks 20 feet high and 50 feet across; approaches steep, narrow, rocky, and washed out. Impassable in present condition even for bull carts.
- 12.5 Road crosses small stream, 10 feet wide and 6 inches deep, clear water, rocky bottom, banks 15 feet high and 40 feet across; approaches steep, narrow, rocky, and washed out. Impassable in present condition even for bull carts.
- 13.3 Road crosses small stream, 10 feet wide and 6 inches deep, clear water, rocky bottom, banks 25 feet high, and 50 feet across; approaches steep, narrow, rocky, and washed out. Impassable in present condition even for bull carts.
- 13.6 Road crosses small stream, 6 feet wide and 6 inches deep, clear water, rocky bottom. Impassable without difficulty for bull carts.

- San Felipe. Two houses on south side of road. Trail to the north goes to Jatibonico (del Norte) and La Legua. Road to southeast goes to Marroquí. Both of these routes are impassable for wheeled transportation, due to their extremely rough and washed-out condition. Miles from Iguará.
14.2
- Road crosses small stream, 5 feet wide and 6 inches deep, clear water, rocky bottom, banks 20 feet high and 40 feet across; approaches steep, narrow, rocky, and washed out. Passable for pack transportation. 14.3
- Road crosses small stream, 10 feet wide and 6 inches deep, clear water, rocky bottom, banks 20 feet high and 30 feet across; approaches steep, narrow, rocky, and washed out. Passable for pack transportation only. From this point to Purgatorio the road is rough, rocky, and washed out, and is used solely as a pack trail. 14.6
- Purgatorio. Four scattered houses. Trail to south goes to Marroquí, passable only for pack transportation. From Purgatorio to Guadalupe the road is very rough, rocky, and washed out, but is passable for bull carts. 16.5
- Road crosses small stream, Guadalupe, dry at present time, water standing in stagnant pools, gravel bottom, banks 30 feet high and 75 feet across; approaches steep, rocky, and washed out. Passable with difficulty even for bull carts. 18.7
- Guadalupe. Trail to the north goes to Chambas, trail to southeast goes to Marroquí. Main road leaves Guadalupe and runs northeast. From Guadalupe to Tamarindo the road is rough, overgrown with ruts and full of dried-up mud holes. Generally passable for bull carts. The road is in such bad shape, however, that pack transportation only is used by natives. 18.9
- Road crosses dry run and bad mud hole dried up at present time; passable for bull carts. 19.6
- Road crosses dry run, approaches washed out; rocky; passable for bull carts. 20.1
- Road crosses small stream, 6 feet wide and 6 inches deep, nearly dry, rocky bottom, clear water, banks 15 feet high and 40 feet across; approaches washed out; passable for bull carts and pack transportation. 20.7
- Road crosses small stream, 6 feet wide and 3 inches deep, nearly dry, clear water, rocky bottom; west approach low, dried-up mud hole and cut up with ruts; east approach washed out, but passable for bull carts and pack transportation. 21.1

Miles from
Iguará.

- 21.3** Road crosses small stream 15 feet wide and 6 inches deep, nearly dry, clear water, gravel bottom, banks 20 feet high and 50 feet across; approaches steep, narrow, soft dried-up mud, passable at present for pack transportation only. Would need cutting away to allow passage of bull carts.
- 21.7** Road crosses small stream 20 feet wide and 6 inches deep, nearly dry, clear water, gravel bottom, banks 25 feet high and 75 feet across; approaches steep, narrow, rocky, and washed out; difficult even for bull carts.
- 22.5** Road crosses small stream 15 feet wide and 6 inches deep, clear water, sandy bottom, low banks; approaches good, passable for wheeled transportation.
- 22.7** Tamarindo. Trail to north goes to Chambas. Trail to south goes to Marroquí. From Tamarindo to the foothills the road is overgrown with underbrush, filled up with numerous dry mud holes, and badly cut up with ruts. Approaching the foothills the road is badly washed out to a depth of 5 feet, making it practically impassable for wheeled transportation.
- 24.2** Road ascends low range of foothills Sierra de Cacarrata about 200 feet, very steep grades, narrow, and badly washed out; impassable for wheeled transportation. From this point to the Río Calvario the road passes through thick forest.
- 25.3** Road gradually descends from this point to the Río Calvario, a descent of about 200 feet; the road is very rough, rocky, and badly washed out; impassable for wheeled transportation.
- 27.7** Río Calvario, a stream 50 feet wide and 2 feet deep at ford, clear water, rocky bottom, banks 40 feet high and 150 feet across; approaches steep and washed out; passable for bull carts. Road on west bank of stream goes to Los Dedos on the Morón-Chambas road; this is the regular route to Nangú and is passable for bull carts. The old road crosses the river and runs north-east for 1.5 miles, when it joins the Morón-Chambas road 7 miles east of Río Calvario.
- 29.2** Junction of old road with the Morón-Chambas road.

ROAD No. 12.

MORÓN—EMBARCADERO DE SANTA GERTRUDIS.

General direction: NE. Distance: 31 miles.

IN GENERAL.

A dirt road, unimproved, passable for lightly loaded wagons, bull carts, and pack transportation. First 5 miles, as far as well, road runs through swamp and is badly rutted; from well to Yana River the road is corduroyed and ditched, but much in need of repair. Last 2 miles west of Las Llaves road passes through woods, is soft, rutty, and overgrown. Between Judas Grande and La Rosa de los Chinos the road is very rough.

IN DETAIL.

Road leaves Morón via calle Gómez running eastward, crossing the Júcaro-San Fernando Railroad on outskirts of town. Miles from Morón.

Crosses Arroyo Cimarron, branch of Arroyo de Robles, **0.1** 20 feet wide and 18 inches deep, muddy bottom, fair approaches, passable without difficulty for lightly loaded wagons. Footbridge on south side of road. For a distance of 0.7 of a mile from stream road is very rough and cut up with cart ruts, but dry and passable for all loaded transportation. Pass old ingenio La Rosa. This section of road has been very muddy and would be with slightest rain.

Road turns northeast into open marsh country, soft **1.1** but dry for a distance of 1 mile.

Cayo Puercos (two houses). From Cayo Puercos **2.1** road runs eastward across wet marsh, water covering marsh from 6 to 8 inches deep. Ground soft but passable for lightly loaded wagons, bull carts, and pack transportation. This is a difficult piece of road, as roadway is not well defined, and losing the road involves one in deep marshes on both sides of road.

Road forks, south fork very poorly defined, but pass- **3.5** able for wheeled transportation through marshy country. Main road fairly well defined, dry, and passable for wheeled transportation.

Well on north side of road. From this well to the **4.8** Yana River the road is corduroyed and ditched on both sides; the earth covering on the corduroy has nearly all been washed away, leaving the bare poles sticking up

Miles from
Morón.

and making the corduroy very rough. It is, however, dry and passable for all wheeled transportation.

- 7.5** The Yana River. The river flows through swamp country; has a poorly defined bed spreading through the swamp for 150 yards from regular bed. The corduroy over this stream and swamp is in bad condition, and is dangerous for animals on account of the wide space between the logs. There were numerous piles of planking near the river crossing, indications of repairing the section of the road.
- 8.5** La Garita, finca, three houses. From the Yana River to La Garita the road ascends about 20 feet, is dry, rocky, but passable for all wheeled transportation.
- 9.4** Road becomes rough, soft, cut up with ruts, and is badly overgrown with underbrush. Is passable, however, for lightly loaded wagons.
- 13.7** Las Llaves, finca, four houses.
- 13.9** Road rough, cut up with ruts, but passable for lightly loaded wagons.
- 15.0** Yagunal, finca, four houses.
- 16.7** Judas Grande, two houses; finca. Sierra de Judas de la Cunagua to the south.
- 18.0** Road becomes less rough, dry, and clear of underbrush.
- 18.2** Two houses; owing to the absence of inhabitants name of place could not be learned.
- 21.5** La Rosa de los Chinos.
- 24.5** Two houses.
- 26.0** Santa Gertrudis. At Santa Gertrudis road joins the road coming from San Bernardo (south) and now turns northward toward the Embarcadero de Santa Gertrudis.
- 28.2** Road passes through marsh, is soft, cut up badly with deep ruts, but is passable for lightly loaded wagons.
- 30.0** Road becomes dry and hard to seacoast.
- 31.0** Embarcadero de Santa Gertrudis.

ROAD No. 13.
PALMAREJO—LOS RINCONES—CIEGO DE AVILA.

General direction: NE. Distance: 27 miles.

IN GENERAL.

1. Palmarejo to Los Rincones.—Good road through extensive palm forest.

2. Los Rincones to Ciego de Avila.—Nearly straight trail. In dry season suitable for horsemen, but impracticable for wheel transportation during all seasons on account of difficult crossings of streams.

IN DETAIL.

Leaves Palmarejo from fork in front of store on Jíbaro-Los Negros road, 8.2 miles east of Jíbaro and 11.5 miles west of Los Negros. Runs north; well-worn road in red soil for 40 yards, and then brown soil. Wire fence on both sides, 10 yards apart. On right underbrush, scattered woods, with a view of 50 yards east, and then a clearing of 100 yards square. Thicker woods on left.

 Miles from
Palmarejo.

Fence ends on left; soil red; banana grove on right. 0.2

Road slightly rutted, soil brown; occupied house 50 yards on right of road (part of Palmarejo), 100 yards beyond which fence ends on right and thick woods begin. Farther north on left is also one occupied house about 50 yards to the west, beyond which thick woods. 0.3

Road turns slightly to the left and runs west of north. Well-worn parallel ridges in places, at right angles to direction of road; no fences; thick woods on both sides. 0.4

Road turns slightly to left and continues west of north; soil red. Parallel ridges continue. 0.6

Road turns to right and runs east of north. Good, well-worn road; soil brown; thick woods continue on right; on left wire fence, scattered woods, and view for 0.5 mile southwest. 0.7

Well-worn road continues west; brown soil; on right thick woods, on left scattered woods, with view south of 0.5 mile. 1.0

Road turns to right and runs northwest. 1.1

Road meets wire fence, with gate on left, running north and south. Fork; left road runs north in brown soil between two wire fences 12 yards apart. Take right road; runs northeast parallel to wire fence on left; well worn and rutted; divides and runs as two parallel roads; 1.2

Miles from
Palmarejo.

dark brown soil; thick woods on right, scattered woods on left.

- 1.4 Meets fence corner on left, with fences extending north-east and northwest. Gate just right of fence corner and trail leading northeast 250 yards through open field to principal house of Palmarejo. Road turns to right and runs east, leaving fence on left. Road parallel, well worn, and rutted; brown soil; thick woods on both sides.
- 1.5 Fork; left road runs northeast, said to lead to Majagua about 11 miles; deeply sunken, red soil. Take right-hand road, which continues east for 80 yards, then turns to left and runs north of east; parallel roads well worn and rutted in dark-brown soil. Forty yards farther east road turns to left, runs northwest, and 20 yards from angle is fork. Left road runs westward and joins Palmarejo-Majagua road. Take right-hand road, which continues northeast.
- 1.6 Road turns slightly to right and runs north of east. Road consists of two parallel well-worn trails; woods scattered on right, with view of 100 yards. Thick woods continue on left.
- 1.7 Road turns to left and runs northeast, well worn and sunken; thick woods on right, underbrush and guano palms on left.
- 1.9 Road turns slightly to right and continues as above described.
- 2.0 Fork. Left road runs east of north and then turns westward. Take right-hand road, which continues northwest as two well-worn parallel trails in light sandy soil; ruts visible, but not deep. On both sides high grass and guano palms, with view of 50 yards.
- 2.2 Crosses trail extending east and west and continues as described.
- 2.3 Crosses trail running northwest and southeast; turns to left, and runs east of north as two parallel trails in light sandy soil; ruts visible, but not deep. Both sides high grass, underbrush, guano palms, and view of 50 yards.
- 2.5 Turns to right and runs north of east; continues as above described.
- 2.6 Turns to right and runs south of east and continues as above described.

Turns to right and runs southeast.

Turns to left and runs northeast, deeply rutted in places.

Crosses small dry run running southeast; gravel 2.9
bottom; banks low and 4 yards apart. Road turns to
left and runs north; well worn, deeply rutted, soil be-
comes black; thick woods continue on both sides.

Road turns to right and runs northeast; good, well- 3.0
worn road, slightly rutted, light soil; thick woods on
both sides; 100 yards and soil becomes red; underbrush
on right and left.

Road crosses trail running east and west and con- 3.1
tinues northeast.

Road turns right, runs east, becomes two parallel 3.2
roads, fence on right, open country and view 1 mile; on
left underbrush and view 0.2 mile.

Road turns to left and runs north of east. Parallel 3.3
trail continues; soil brown; on right fence ends and view
of 1 mile.

Road crosses trail running north and south; soil 3.5
becomes brown; underbrush on both sides; view 0.5
mile to right and 200 yards to left.

Fork. Right-hand road runs southwest. Take left- 3.8
hand road which runs east; trail stony; soil red.

Road crosses small dry run extending south and 4.0
continues northeast; well worn, in black soil, faintly
rutted; two parallel trails; view 50 yards.

Soil becomes red; scattered woods on both sides; 4.3
underbrush prevents view to right and left.

Road turns to left and runs east and north. Many 4.4
small stumps in trail; on both sides high grass, weeds,
and scattered trees; view 0.5 to 1 mile.

Road turns slightly to right and continues east of 5.0
north. Good road; two well-worn parallel trails; high
grass, weeds, and scattered trees on both sides; view 0.5
to 1 mile to line of forest; red soil.

Trail crosses, running east and west. Road turns 5.6
slightly to left and continues east of north. Soil becomes
red. Line of woods close in to 0.2 mile on right and to
50 yards on left.

Road turns to left and runs west of north; trail branches 5.9
off and runs east of south.

Road consists of two parallel well-worn trails in brown 6.0
soil, open, grassy country on both sides, view 0.2 mile on
right, 0.7 mile on left.

Miles from
Palmarejo.

- Fork. Right road runs northeast, and 0.2 mile becomes small trail. Take left-hand trail, better worn, runs west of north. Road consists of two parallel winding trails in red soil and enters guano and corajo palm forest.
- 6.2** General direction changes to northwest, continues as above, but brown soil.
- 6.5** General direction changes to west of north and continues as above.
- 6.7** Two parallel winding trails in extensive palm forest, general direction of road east of north.
- 7.0** Forest very thick, exclusively corajo palms and underbrush. Road turns east of north and continues as described. To the southwest is located La Sabana del Silencio.
- 7.2** Road emerges from corajo forest into open space, with grass, scattered trees, and scattered corajos; open space about 0.5 mile north and south, 0.3 mile east and west. To the north is seen a house, Rincones, in the southeast corner of a large field, while beyond the northwest corner of that field and a little east of north are seen three huts, used as a camp by teamsters hauling logs to Guayacanes. Through the open space from east to west is seen the telegraph line (government telegraph Ciego de Avila-Sancti Spiritus, 2 wires), which crosses about the center of the field. Road turns to right and runs north of east.
- 10.2** Road meets telegraph line and well-worn trail parallel to it. Turns to right through gate in fence running north-east and southwest. West of gate road continues east of north to the lumbermen's huts and then enters the woods and leads to Guayacanes, about 6 miles. In field well-worn trail continues parallel to telegraph line.
- 10.5** Fork. Right-hand trail leads 175 yards southeast to occupied house in corner, but outside of field (Rincones). Left-hand trail runs northwest through field to gate in corner, leading to woodmen's huts. Take center trail, which continues in same direction.
- 10.6** Trail passes through gate in east fence, which extends west of north and east of south. Enters woods and continues 5° south of east.
- 10.7** Small clearing in woods on left.
- 11.0** Trail leads down by very abrupt decline to large, dry run, the Río Grande running south. Banks abrupt, 15 feet high, 90 feet apart, bottom rough, large, white boulders, clear water in pools found in places. Crossing

in dry season difficult for horsemen and impassable for wagon transportation. During rainy season a difficult ford for horsemen. Los Rincones is 600 yards west and 150 yards south of the place where the telegraph line and parallel trail cross the Río Grande. Ford of Río Grande difficult for horsemen and impassable for wheeled army transportation at all seasons on account of steep banks with narrow winding trail and large boulders in river bed. Water good for drinking. During dry season clear water found in large, stagnant pools. Trail leaves Río Grande 5° south of east, parallel to telegraph line. Well-worn black soil, thick woods on both sides.

Trail crossed by small cart road running northwest and southeast, hard, black mud, deeply rutted, beyond which trail continues. On right (south) wooden fence, beyond which is grassy field, view 100 yards. On left (north) woods continue. **11.2**

Trail continues as above described. Soil becomes brown, fence ends, wood on both sides. Trail running north and south crosses road. **12.0**

Trail meets small trail from southeast and continues south of east. **12.3**

Trail crosses small, dry run, black, sandy bottom, good crossing, and continues south of east in black soil which soon becomes red and stony. Woods on both sides. **13.0**

Fork. Left-hand trail runs southeast through open field for 1 mile. Take left-hand trail, which continues south of east. Open field on right; on left thick woods continue. One house 50 yards to right (south) of road beyond, which enters gate in fence extending north and south (where road from southwest enters from gate on right in fence east and west, crosses trail and extends north). Trail continues through thick woods. Trail descends in gorge 12 feet deep and crosses dry run, gravel bottom, and extending north and south (probably branch of Guayacanes River), and then continues in brown soil with wire fence parallel on left (south) through thick woods on both sides. **14.2**

Trail crosses Guayacanes River, which runs north and south, stony bottom, and continues in same direction south of east, black soil, thick woods on right; wire fence and river running parallel on left. **14.7**

Gate in fence on left, woods become scattered, view 0.1 mile to right and 25 yards to left. Woods now recede 0.5 **15.2**

Miles from
Palmarejo.

- mile on right and 50 yards on left. Trail passes through three gates through two small cattle pens.
- 15.5** Beyond cattle pens trail passes through another gate in fence (running north and south) and enters palm forest the first (west) part of which is burned. Trail well worn in light, sandy soil. Guano palms on both sides. Trail crossed by excellent, well-worn road slightly rutted in light, sandy soil, and extending east of north and slightly west of south, beyond which trail continues in same direction. On right, underbrush, palms, and then thick woods; on left, underbrush and palms.
- 16.0** Trail now running 10° south of east crossed by two parallel roads running north and south in light soil, beyond which trail continues through forest of guano and yuraguano palms, with view 0.2 mile to right and 0.5 mile to left.
- 16.2** Trail in light soil enters open country, with view 0.7 mile on either side. Trail enters thick woods.
- 16.5** Trail enters open country again, with view 0.7 mile on each side, and is crossed by well-worn and slightly rutted road running northwest and southeast, beyond which trail continues through open, grassy country with view of 1 mile on either side.
- 16.7** Trail is crossed by another, running from east of north to west of south, which leads 0.2 mile to house. Beyond this point trail continues as before. Trail crosses north and south road and continues through open country, with view of 1 mile on either side.
- 17.0** Soil becomes red. Trail continues in same direction; open country on right with view of 1 mile; thick woods and underbrush on left. Soil becomes light again and country open on both sides; on right view of 2 miles.
- 17.2** Trail crosses good road, running northeast and southwest, beyond which is view across open country for 2 miles on right and 5 miles on left. Sixty yards farther east another good road, running east of north and west of south, crosses trail, which continues as above.
- 17.7** Soil becomes red. On right open country for 2 miles. On left open country for 500 yards to thick woods.
- 18.0** Trail joins; 120 yards farther trail forks; left-hand trail leads north of east. Take right-hand trail, which continues its former direction south of east. Parallel wire fence on left.

- One house seen 0.5 mile on left (north). Line of woods draws nearer on both sides till road enters area with thick woods at 50 yards on either side. Miles from
Palmarejo.:
18.2
- Double swinging gate with wooden top piece in fence extending north and south, beyond which is dry run, stony bottom, and steep sides in red soil extending south (probably Río Las Vueltas). Beyond this dry run soil is brown for a short distance and then red. Wire fence on right and thick woods beyond it. On left open country, with view of 1 mile. 18.5
- Road continues south of east through country, open 1 mile to right and 2 miles to left. Large royal palms in center of field on right. 19.0
- Woods close in on left to 50 yards. Woods close in to 100 yards on right and extend to 1 mile to left. 19.2
- Trail passes through double swinging gate with tall side and top piece in fence at right angles to road and enters circular well-worn area without grass. View 200 yards to right and about 0.5 mile to left to Cuba Company Railroad. About 100 yards farther east trail crosses dry run, sandy bottom, and running north and south beyond which soil becomes black, with scattered woods on both sides of trail. 19.5
- Low place in trail, a mud hole during rainy season, beyond which a road joins from southwest. Trail becomes a road and crosses dry run with gravel bottom at right angles. 19.6
- Road extends in same direction, with thick woods on right and scattered woods on left, and is joined by another road from southwest and crosses another dry run at right angles, stony bottom. Beyond this dry run excellent road in black soil extends south of east, slightly rutted; open country on both sides; view 3 miles to right and 0.5 mile to left. 19.7
- Road passes through double swinging gate with high sides and top piece in fence extending north and south and continues south of east. Grove of royal palms about 0.2 mile north. Road forks. Left is trail extending northeast. Take right-hand road, which, well worn, continues in same direction through open country with view of 0.5 mile to right and 1 mile to left of railroad. About 100 yards farther east there is another fork. Left-hand road extends northeast. Take right-hand road, which continues in same direction parallel to telegraph line. Soil brown, open country, view of 0.5 mile to right and 1 mile to left. 20.0

Miles from
Palmarejo.

- Crosses excellent road, which runs east of north and west of south, beyond which road continues in soil which is brown, then red, and then changes again to light-colored sand. Open country on both sides.
- 20.5 Trail crosses road at right angles, beyond which line of woods closes in to 0.2 mile on right.
- 20.7 Road passes through two gates in fences 20 yards apart and inclosing an excellent road in light soil which leads to La Ceiba. This point is about 0.7 mile south of railroad.
- 21.0 Trail forks. Right-hand trail leads 0.5 mile southeast to houses. Take left-hand road, which continues east in brown soil. Crosses a trail running northwest and southeast, 150 paces east of which trail enters gate in northeast and southwest wire fence, beyond which a trail leads south to one house surrounded by royal palms. Soil becomes red, trail continues east through open country, with view 0.5 mile to right and 3 miles to left.
- 21.3 Trail forks. Left-hand trail runs east of north to railroad. Take right-hand trail, which continues east and on right meets fence corner, fence coming from southwest, turning east and continuing parallel to trail. Trail enters large open area about 0.8 mile long, view 2 miles on each side.
- 22.0 Trail enters gate in wire fence, extending east of north and west of south.
- 22.2 One occupied house La Poza on left of road. Trail crosses Río La Poza, running south. Wide stream, stony bottom, beyond which trail enters three gates in parallel fences extending north and south and continues east in brown soil about 0.2 mile south of railroad, with scattered woods and view of 0.2 mile on both sides. Trail passes through two gates in parallel wire fences 12 yards apart extending northwest and southeast and inclosing excellent road in light soil. After crossing this road the trail continues east through open country, view 200 yards to right and from 1 to 0.2 mile to left.
- 23.3 Trail in red soil enters thick woods on both sides and continues east parallel to wire fence on right and telegraph line.
- 23.5 Fork. Right trail in lane between fences 12 yards apart leads south. Take left-hand trail, which continues east in red soil. On the right is parallel wire fence.
- 24.2 Trail enters gate in fence extending east of north and west of south. Fork. Right trail runs south and then

turns southeast. Take left-hand trail, which continues east. Railroad about 400 yards to north.

Miles from
Palmarejo.

Trail enters scattered woods with thick underbrush on left and passes through gate in fence running nearly north and south. Trail passes through gate in fence and forks. Right trail a lane which runs south between two wire fences 10 yards apart. Take left-hand trail, which passes through another gate in fence running 250 yards north to railroad and south. Beyond fork trail runs 10° south of east, parallel to fences on left. Telegraph line passes over fence and continues east. Southeast from fork is one occupied house surrounded by corn patch. **24.5**

On right one house 50 yards south of road. Trail passes through double wire gate in fence extending north and south and crosses brook running south at right angles to trail, beyond which trail continues, with thick woods on right and wire fence on left inclosing pasture. **25.0**

Fork. Take right-hand trail, which is a well-worn road, and leaving banana grove on left runs southeast, turns east, and crosses stream 12 yards wide, Los Negros River; bad crossing in deep mud. **25.2**

Road meets telegraph line and parallel trail. Fork. Take left-hand road, which continues east as trail. **25.5**

Trail crosses Cuba Company Railroad (not crossing for wagons) and passes through gate into woods and meets well-worn road from northwest. **25.7**

Road passes through gate in fence about 150 yards north of railroad and 250 yards passes through gate in wire fence into the camino real (Ciego de Avila-Jicotea). **26.0**

Ciego de Avila. **27.0**

ROAD No. 14.

MORÓN—CHAMBAS—PUNTA ALEGRE.

General direction: NW. Distance: 36.5 miles.

IN GENERAL.

A fair dirt road in dry season, practicable for lightly loaded wagons, bull carts and pack trains. Passes through grassy and slightly wooded country from Morón to Los Dedos, and from there to Chambas through forest. Road is soft and overgrown with underbrush. From Chambas to Punta Alegre is a dirt road suitable for wagons in dry season.

IN DETAIL.

Miles from
Morón.

- Leaves Morón via calle Libertad running west. Crosses small stream about 1,200 yards west of town. Arroyo del Robles, muddy bottom; may be passed without much difficulty by wagons.
- 4.0** Crosses two small streams about 300 yards apart, Arroyo del Burro. Eastern stream has hard, sandy bottom, clear water, 15 feet wide and 1 foot deep; good approaches. The western stream has no well-defined river bed; spreads between the two streams, making this section of the road for about 200 yards very soft and marshy. Would need corduroying to make it passable.
- 7.0** Ranchuelo.
- 12.0** Crosses Río del Calvario; clear running water 20 feet wide and 1 foot deep, sandy bottom, banks about 20 feet high. Approaches would have to be cut away to permit passage of wheeled transportation. Good camp ground along road east of river for command size of brigade.
- 13.5** Road begins to enter forest, becoming softer and cut up with ruts; overgrown with underbrush but passable.
- 16.5** Crosses small stream, Río Nangú, with hard mud bottom, stream muddy, 12 feet wide and 1 foot deep; approaches to stream soft, but stream may be passed without much difficulty.
- 19.0** Crosses Chambas River (Río de Los Perros); clear running water, 30 feet wide and 18 inches deep, sandy bottom, banks about 20 feet high, with steep approaches, which would have to be cut away to permit passage of wheeled transportation. La Sierra de Cacarrata to the south. Chambas. Camp site for regiment 600 yards west of town. The camino real, instead of leaving the town and running straight northwest, turns to south about 600 yards from river. It continues south for about 1.5 miles, then turns west-northwest. From Chambas the road runs through forest with occasional clearings and patches of grassy country. The road is very soft, with numerous mud holes, which are passable, although a slight rain would make the road impassable for several miles west of Chambas. Road leaves Chambas, running north along west bank of Chambas River.
- 20.5** Crosses Chambas River at Vega Grande; banks of river at ford about 20 feet high, approaches steep and narrow, would have to be cut away slightly for wheeled trans-

portation. From Vega Grande, road follows east bank of Chambas River with thick forest on east side of road.

Miles from
Morón.

Road from Macagual to Los Perros enters forest and becomes very poor; numerous mud holes are encountered, which would only permit the passage of lightly loaded wagons. It is badly cut up with ruts and would be very difficult of passage after even a light rain. There are two unimproved roads from Los Perros to Punta Alegre, as well as numerous pack trails.

Los Perros. Here Arroyos Blanco and del Brazo enter the Chambas River. The two roads are passable for all classes of wheeled transportation.

One road leaves Los Perros and runs north to Mamón and thence east along coast to Punta Alegre, 2 miles distant; the other road leaves Los Perros, running north-east and joins the other road 0.2 mile south of Mamón. The latter road is the main traveled, and is the main line of communication between Chambas and the south coast.

Punta Alegre.

36.5

ROAD No. 15.

SANTA CRUZ DEL SUR—GUAICANÁMAR—CONTRAMAESTRE—VISTA HERMOSA.

General direction: NE. Distance: 54 miles.

IN GENERAL.

1. Santa Cruz del Sur to Contramaestre.—Dirt road, fairly good in dry season, but practically impassable for wheeled transportation after the rains set in. The road is very bad from Santa Cruz del Sur to the first fork in the road, about 3 miles north. At this point a private telephone line leaves main road and follows road to west. The government line continues along main road to Camagüey. Both lines connect Santa Cruz with Camagüey, but there are no intermediate connections. About 6 miles north of Santa Cruz the country becomes slightly rolling and the roadbed is firm. Where it passes through heavy woods it is usually unfenced, but in open country five-wire barb-wire fences are on both sides. Its width varies from a mere wagon trail to 100 feet. The fords can also be made practicable by a little work on approaches and use of materials available at all places. Many of the arroyos, dry at the present time, are good streams during the rainy season. Very few rocky formations were noted within about 20 miles north of Santa Cruz.

2. Contramaestre to Vista Hermosa.—This route was much used by the Cuban forces in former wars. From Contramaestre to Cantina Brava the trail is a private one, used by owners of near-by fincas, but closed to the public. It passes over high, well-drained ground and can be used by pack trains at all seasons. The woods are not dense, and patrols would have little difficulty in working on the flanks of a marching body of troops. The hills to the east and the rocky ledge to the west of the Santa Cruz del Sur road just south of Cantina Brava commands the road and should be carefully examined by detachments before the main body attempts to cross the arroyo. Under cover of the woods along the arroyo west of the road troops could gain the rocky ledge without being observed from the rest of the hills to the east. The old Cuban hospital was about 1 mile south of the callejón on the finca Gustavo Marín.

Miles from Santa
Cruz del Sur.

- Take road north from rural guard quarters. Road
- 1.0 crosses tidal swamp just north of town. Country very flat and swampy. Grassy pastures on both sides. Some light brush. Road heavy, many deep mud holes.
 - 2.0 San Agustín. Four native houses. Light woods and scrub palms. Road boggy.
 - 5.0 Río Santa Cecilia. Good stream, 50 feet wide, 1 foot deep, flows west. Steel bridge about 80 by 15 feet and 30 feet above water. Good ford 100 yards east of bridge, rocky bottom, good approaches. Light woods both sides. Road boggy.
 - 8.0 Cantina La Victoria. Pastures east side of road. Light woods west. Fenced.
 - 9.0 Light woods. Hard roadbed. Sabanilla.
 - 14.5 Cemetery 100 yards west of road. Big clearing.
 - 15.0 Punta de San Juan. A store. Pastures and light woods.
 - 17.0 Cantina Santa Isabel. Light woods. Dense brush.
 - 19.0 Río Jobabo. Good camp for a battalion or squadron. Wood, water, and grazing. Good ford. Stream flows west.
 - 21.0 Río Contramaestre; flows west, 15 feet wide, 2 feet deep, swift, rocky bottom. Steel bridge about 100 by 20 feet, 40 feet above water. Good ford 100 yards east of bridge. Macadam approaches to bridge. Locality known as Guaicanámar. Pastures with cattle. Good camp site for regiment. Fuel, grazing, and water.
 - 21.8 Arroyo. Slight hill. Pastures, cemetery on east.
 - 22.0 Guaicanámar Arriba. Cantina.

Road soft and boggy; pastures with clumps of small trees. Arroyo de Canabo. Muddy ford. Good camp for battalion. Fuel, grazing, and water.	Miles from Santa Cruz del Sur. 24.0
Arroyo Tranquera de Piedra. Road passes over three rocky hills. Locality known as Tranquera de Piedra. Three native houses.	24.5
Finca La Deseada. Large boulder 150 yards west of road. Big clearing, many cattle. Arroyo. Good camp. Bridge in course of construction.	29.0
Finca Hato Potrero.	30.0
Río San Juan de Najasa. Steel bridge in construction. Good camp for large body of troops on south bank. Grazing, water, and fuel.	35.0
Finca Jimirú. Pastures.	37.0
Cantina La Larga de Jimirú.	38.0
Arroyo de la Vega. Good stream and ford. Camp for brigade on south bank. Finca La Larga de Jimirú.	39.0
Cantina and Río Guásimas. Stream dry. Bridge in course of construction. Ford good, rocky bottom. Fincas San Luis, west of road. Contramaestre east of road.	40.0
Río Contramaestre. Wooden bridge, new, 75 by 20 feet, 15 feet above stream. River is nothing but a series of mud holes at the present time. Rural guard station and one cantina. Callejón enters main road from the west. Spanish troops built a small redoubt on side, now occupied by rural guard quarters. Take Santa Cruz del Sur road and go south to small native house, about 600 yards. Trail leaves road to east, passing through a corral about 100 yards south of house; follows east side corral. Bends to road and runs along wire fence for about 100 yards, then takes a southeasterly course through belt in woods.	42.0
Small clearing; three large boulders 30 yards north of trail. Crosses clearing and enters woods southeast of boulders.	43.5
Rocky arroyo, 8 feet wide, 12 inches deep, good ford. Several trails cross, but main one is easily followed.	44.8
Trail changes to east, four-strand barb-wire fence south of trail.	45.0
Changes direction to northeast, at ledge of rocks. Cross Contramaestre River. Practically dry at present time. Good crossing, hard bottom. Dense brush. Trail forks; go east.	45.3

Miles from Santa
Cruz del Sur.

- Small clearing. Barb-wire fence, with trail on east side. Follows fence, finca Contramaestre, 30 acres under cultivation. (Corn, beans, and potatoes.)
- 45.8
- 46.0 Río Contramaestre. Follows east bank.
- 46.2 At bend in river turn east through gate in wire fence.
- 46.3 Trail forks, continues east.
- 46.6 Passes through clearing. Grave fenced with barb wire on north side of trail. Pass through gate in fence across clearing.
- 47.0 Cross wooded arroyo and enter clearing.
- 47.2 Trail passes through corral Cantina Brava and enters Santa Cruz del Sur-Camagüey road. Dirt road, fenced, available for all transportation in dry season. Country slightly rolling and open.
- 48.0 Grassy pastures, slightly rolling to west. Two bald hills 1,000 yards east of road. Hills about 150 feet high and 400 yards apart. With the exception of a few scattered trees, country between hills and road is open. Crests command road for a mile north and south.
- 48.3 Two grassy hills with rocky crests 500 yards to east; 80 yards west of road rocky palisade rises. Arroyo. Wooded west of road. Dry at present time.
- 49.0 Rocky arroyo. Good camp for battalion of infantry or squadron of cavalry. Fuel, grazing, and water.
- 50.0 Rocky arroyo, woods.
- 51.0 Callejón leaves road to east over rocky hill. Light woods to north. Grassy pastures to south, along ridge. Finca San Miguel de Najasa. (Five hundred yards south of point where callejón leaves main road is a good camp site on the Arroyo San Francisco; fuel, grazing, and excellent water at all seasons.)
- 54.0 Vista Hermosa. Rural guard station, one store. Enters Ecuador-Camagüey road.

ROAD No. 16.

CIEGO DE AVILA—LA CAROLINA—SAN PEDRO—SAN RAMÓN DE VICTORIA—MORÓN.

General direction: N. Distance: 22 miles.

IN GENERAL.

A good road for all transportation in dry season. In the rainy season almost impassable for wheels and difficult for horsemen.

IN DETAIL.

Road leaves Ciego de Avila from northern extremity of calle Abrahán Delgado, passes 75 yards east of block-house 27 (first one on north side of town), and runs north-east; well-worn road, light, sandy soil, stony in places. Miles from Ciego de Avila.

Road enters lane, turns to right, passes one occupied house, San Agustín, on left, runs south of east, passes through double-swinging gate and continues in same direction; a straight well-worn road, stony in places, brown soil, between wire fences 12 yards apart. 0.2

Road turns slightly to left, crosses Menchaca Creek, which here runs north and south; stony bottom, gradually sloping banks, ford 12 feet wide, nearly dry; approaches somewhat washed out, but practicable. Clear pool on each side of crossing; good place for watering animals. Beyond creek wire fences diverge and then run parallel 100 yards apart. 0.7

Road continues as above, thick woods on right, pasture on left. 1.0

Fork. Left-hand road follows fence on left and runs 0.5 mile northwest to principal house of San Lorenzo (finca). Take right-hand road which runs east, crosses small dry run with sandy bottom running northwest; turns to left, runs northeast; two parallel winding unfenced roads in brown soil, thick woods on both sides. 1.4

Continues northeast as heretofore. 2.0

Road meets fence from southeast and passes one occupied house, San Lorenzo, on left, just beyond which is gate in fence extending west of north and east of south. Fork; left-hand road extends north and becomes trail. Take right-hand road, which continues northeast in light, sandy soil, well worn and rutted; scattered woods on both sides, and view of 50-100 yards. 2.6

Miles from Ciego
de Avila.

- Road crosses small dry run, sandy bottom, beyond
- 3.0 which road extends east and then bends to left and continues northeast.
 - 3.1 Fork. Large palm between branches of road. Right road on higher ground in red soil extends north of east, with branches to Laguna Vieja 0.5 mile to southeast, Salvial 1.4 miles southeast, to the camino Real (Ciego de Avila-Camagüey) 4.5 miles southeast, and to Guachinango 3 miles to the northeast. Take left-hand road, which extends northeast, sunken in red soil at fork.
 - 3.6 Trail branches from left and runs north 0.2 mile to Rodaja (finca).
 - 4.0 Gate in wire fence extending northwest and southeast, just beyond which is one occupied house, La Portada, and fork. Right-hand road extends north of east 3.5 miles to another running north to Morón from Artemisas. Take left-hand road which runs northeast, light, sandy soil, good well-worn road, very winding through forest of guano palms.
 - 4.5 Soil becomes very red, road crosses small dry run extending northwest and southeast; banks 3 feet high, approaches by gradual slope.
 - 4.7 Fork. Left road runs 0.2 mile north to one occupied house, La Aguada; take right-hand road which runs northeast, meets wire fence extending northwest and southeast, turns to right, and runs southeast parallel to fence on left.
 - 5.7 Fork. Left-hand road runs west of north 1 mile to windmill and 5 miles to Ceballos. Take right-hand road which runs northeast and east by turns, in red soil, through thick woods on each side.
 - 6.7 Road running north of east, ascends southern foot of Carolina hills, red soil, scattered woods on each side.
 - 7.0 Summit of hill reached, road descends and runs north of east.
 - 7.1 Foot of hill, road runs east through scattered woods and then out into open grassy area, and northeast to one
 - 7.4 occupied house, La Carolina, northeast of which is a windmill; excellent well, watering trough. From La Carolina a trail leads west over a saddle in hills to windmill 1 mile. Take principal road which leads south of east from La Carolina 200 yards to gate in fence extending east of north and west of south, beyond which is the road to Morón known as the Trocha Camagueyana. Right-hand road leads 0.5 mile south to La Paz. Take

Miles from Ciego
de Avila.

left-hand (north) road which runs parallel to wire fence on left through open, grassy country, with view of 2 miles to right and 0.3 mile to left toward Carolina hills, to one occupied house on right surrounded by wooden worm fence, Las Paradass. Road continues 10° east of north; good and straight in red soil between wire fence on left and wooden fence on right. **7.5**

Wooden fence on right ends, thick underbrush on right, thick woods on left. **7.6**

Country becomes open on left. **7.7**

Good straight road in red soil continues east of north parallel to wire fence on left. Wooden fence on right, inclosing grassy field, with view for 0.2 mile; thick wood on left. **8.5**

Gate in fence on right and trail 300 yards east to principal house of Mi Destino. Other houses in vicinity. Beyond Mi Destino a gate; good straight road in red soil continues, fences on both sides. **9.0**

Gate in fence on right and trail 100 yards east to principal house of Candelaria. Other houses about 300 yards north. Good well and watering place here for stock. Beyond Candelaria a gate; road continues as before. **9.7**

Wire fence ends on right, and good road in red soil continues parallel to fence on left through thick woods both sides. **9.9**

Road continues as above described. **10.5**

Clearing on left, with view for 0.2 mile; lane parallel to road beyond fence on left. **10.6**

Lane on left of road leads off to west. No opening from lane to road which passes banana grove on left, thick woods continue on right. **10.7**

Gate in fence on left and trail 100 yards west to two occupied houses 50 yards apart, San Pedro, beyond which road continues in same direction in red soil, between parallel wire fences inclosing pastures on both sides; view 0.5 mile to right and 0.2 mile to left. **10.8**

Road turns slightly to right and continues as good straight road; parallel wire fence on right, thick woods on both sides. **10.9**

Grove of mango and royal palm trees on right of road, beyond which underbrush and scattered woods on right, with view of 100 yards. **11.3**

Road continues as above described. **11.5**

Miles from Ciego
de Avila.

- Gate in fence on right and 150 yards to the southeast
- 11.6** one occupied house, San Ramón de Victoria, surrounded by banana grove and sugar cane. Wooden fence on right. Just beyond San Ramón de Victoria gate is trail to left, which winds west and southwest 0.5 mile to three houses, La Norma. From La Norma trail good road continues in same direction east of north with scattered woods and underbrush on right and thick woods on left.
- 11.9** Fork. Left branch well-worn and rutted road in red soil runs northwest to railroad and Morón. Take right-hand branch which runs northeast as good road between parallel wire fences inclosing scattered woods on right and pasture on left, with view of 0.3 mile.
- 12.0** Gate in fence on right and trail 200 yards to one occupied house, San Andrés. Beyond this gate road turns to left and continues 25° east of north, parallel to wire fence on left; good straight road, red soil, thick woods on right, grassy field on left, with view of 0.3 mile to woods.
- 12.3** Gate in fence on left and trail 150 yards west through large pasture to one occupied house, San Antonio, beyond which road continues as before.
- 12.5** Good road continues east of north in red soil with thick woods on right, and on left wire fence inclosing large grassy field, with view of 0.7 mile.
- 12.6** Strip of thick woods on left and then open clearing; thick woods continue on right.
- 12.8** Gate in fence on left and trail 75 yards west to one occupied house, Suspiros de Villas, beyond which road turns slightly to right and extends 30° east of north, in red soil, badly cut, and two parallel tracks in places; thick woods continue on right, on left 50 yards cleared, and then thick woods.
- 13.3** Trail branches from right of road and extends 100 yards east to occupied house, Guaguemey de la Ceiba. Other house of same finca 100 yards to southeast. Beyond this trail the road bends slightly to right and continues east of north, badly cut and worn in places; good parallel trail for horsemen; red soil; on right, wooden fence and clearing for short distance and then thick woods; on left, thick woods.
- 13.6** Wire fence on left; better road.
- 13.9** Gate in fence on left, well-worn trail extends at right angles to road through thick woods to the northwest, while the road continues as before.

Road turns slightly to left and continues 35° east of north; straight road in red soil, parallel to wire fence on left, thick woods on right, pasture on left with scattered corajo palms, and view of 100 yards. Miles from Ciego de Avila. 14.0

Road continues as above described. 14.5

Distant mountain visible in northeast. Scattered royal palms in a line and 100 feet apart in pasture on right; on left, inside wire fence, is pasture with scattered palms, and view of 0.5 mile. 14.7

Gate in fence on left and trail 0.7 mile west of north to two houses, Santa Rosa. Beyond Santa Rosa gate, road turns to right and runs northeast, good, in red soil, pasture on each side; view 0.2 mile to right through scattered corajo palms, and 0.5 mile to left over high grass. 15.0

Gate in fence on left and trail about 0.2 mile northwest to one occupied house, La Caridad, not seen from road. Just beyond La Caridad gate the road forks. Left branch runs west of north to railroad and Morón. Take right-hand road which runs northeast, good road in red soil, wire fence on right, wooden worm fence on left, scattered woods, corajo palms, and view of 100 yards on both sides. 15.2

Thick woods begin on right. 15.4

Gate in fence on each side. On the right, trail from gate 50 yards southeast to one occupied house, La Unión. On left, trail from gate 50 yards northwest to one occupied house, Desengaño. Beyond these gates road continues in same direction, with underbrush and royal palms. Fence on left inclosing scattered woods and underbrush. 15.5

Thick woods on both sides; wire fence on right only. 15.6

Fork. Equally worn roads. Right-hand road runs north of east. Take left-hand road which runs west of north in red soil, parallel to wire fence on right, beyond which are underbrush and scattered corajo palms. Thick woods on left. 16.0

Fork. Right-hand road runs south of east to one occupied house, Horconcito, 50 yards to east of which is another house of the same finca, connected with which is a small sugar mill. This appears to be a prosperous finca, with sugar cane, tobacco, and cattle. Take left-hand road which leads nearly north, bad and rough, flooded during rainy season, well-worn and deeply rutted, brown soil; parallel to wire fence on right, beyond which is clearing, field of tree stumps and sugar cane. Thick woods on left. 16.2

Miles from Ciego
de Avila.

- Fork. Right-hand road extends north; very bad, rough, hard mud; probably flooded during rainy seasons. Take left-hand road which leads around to the left, northwest and then northeast, as a bad, winding road, in brown soil, many stumps, through thick woods, joins road which branched from the right.
- 16.6 Meets corner of wooden fence on left which extends east of north and south of west. Also wire fence from east of south enters from right, turns east of north, and runs parallel to wooden fence. Road, as well-worn trail, in brown soil, extends between fences, east of north. Wire fence inclosing scattered woods and underbrush on right, wooden fence on left.
- 16.9 Fence ends on left; thick woods on both sides.
- 17.0 Fork in open area, which is 0.2 mile north and south and 0.5 mile east and west. Road equally worn. Right road leads northeast. Take left road which runs northwest and crosses well-worn trail at right angles.
- 17.1 Road bends to left and continues northwest. Well-worn trail in grassy road continues as above described.
- 17.4 Road meets well-worn and rutted road from the east, camino Real from Morón to Cupeyes Arriba and Camagüey, on left, bends to left, and continues north of west. Better road.
- 17.9 Road enters thick woods, both sides.
- 18.0 Road crosses well-worn trail at right angles, turns to right, and runs northwest through thick woods.
- 18.1 Road crosses well-worn trail running north and south, turns to right, and runs northwest through thick woods.
- 18.2 Trail branches from right and extends 0.2 mile northeast to two occupied houses, Chillantes. Beyond this trail road continues in original direction.
- 18.25 Fork. Left-hand road leads south. Take right-hand road which turns slightly to the right and runs west of north as good road, in brown soil, with thick woods on both sides.
- 18.5 Sunken area, large mud hole in rainy season. Road circles around to the left and continues in same direction as before.
- 18.6 Road turns slightly to the right and turns north. thick woods on both sides. Clearing in woods for 100 yards passed on the right.
- 19.0 Road passes through sunken area which forms large mud hole during rainy season, likely impassable for loaded

wagons and artillery. Abundant wood at hand for cor- Miles from Ciego de Avila.
duroying this place.

Brown soil. Road turns to right and runs east of north. 19.5

Road turns slightly to right, sunken in places, soil 20.0
becomes red, view 50 yards each side.

Road turns to right and runs north. Fifty yards on 21.0
left is sunken area, probably a pond in rainy season, 50
by 200 feet. Road continues as above described.

From this point house tops of Morón can be seen east 21.4
of north and blockhouse near railroad is visible in the
west. Road meets wire fence on left.

Road continues as above described, between converg- 25.5
ing wire fences with view of 30 yards to right and 1 mile
to left.

Road enters large open space; sawmill 100 yards to 21.7
northwest. Road continues 25° east of north, parallel
to fence on right. Fences now 25 yards apart.

Road crosses railroad track (Júcaro-San Fernando 21.9
Railroad). Railroad station on left.

Town of Morón (southern end of calle Martí), station 22.0
of Júcaro-San Fernando Railroad.

ROAD No. 17.

CUPEYES ARriba—SANTA ROSA—SAN FRANCISCO—EL CARMELO—
SABANA—LAS ARTEMISAS—EL COROJAL—CIEGO DE AVILA.

General direction: SW. Distance: 19 miles.

IN GENERAL.

First mile from Cupeyes Arriba the road is a trail through private grounds; next 4 miles it is a road little used; next 5 miles it is a winding trail, becoming a road in the forest; next 0.2 mile a well-worn road through Las Artemisas to the camino Real (Ciego de Avila-Camagüey), which is a well-worn, unimproved dirt road. Entire road passable for horsemen in dry season; the parts of the road consisting of a trail are difficult for wheeled transportation during dry season and likely impassable in wet season.

IN DETAIL.

Trail leaves the Morón-Camagüey camino Real at Miles from Cupeyes Arriba.
east gate of principal finca of Cupeyes Arriba, runs south-
west through an open country of scattered guano palms
as well-worn trail in brown soil parallel to wire fence on

Miles from Cu-
peyes Arriba. the left; view 0.2 mile to right, including principal house,
and 0.3 mile to left.

- 0.1 Trail turns to left and runs south past gate in wire fence on left. From this gate trail leads north of east, crossing camino Real and extending about $1\frac{1}{4}$ miles to north houses of Cupeyes Arriba. From the gate our road continues parallel to wire fence on left southward.
- .3 Thick underbrush on right of trail.
- .5 Trail forks. Right trail runs southwest. Take left trail, which continues south. On both sides guano and corajo palms with thick underbrush.
- .7 Trail meets road from east, turns to right, and extends southwest as well-worn road through forest of palms with thick underbrush and view of 50 yards on each side.
- 1.0 Road continues southwest as described.
- 1.4 Road passes through gate in fence running north of east and south of west and continues in same direction southwest through clearing in thick woods 50 yards wide.
- 1.6 Road turns to right, runs south of west through scattered woods and palms.
- 1.9 Road passes occupied house on left, Santa Rosa, beyond which it continues as described.
- 2.0 Road passes through gate in wire fence extending west of north and east of south, beyond which road continues in same direction, south of west, as heretofore, and becomes four well-worn parallel trails in reddish soil.
- 2.1 Road crossed by path running northwest and southeast, beyond which road continues in same direction through forest of underbrush and palms.
- 2.6 Road turns to right and runs west as three parallel trails in red soil, through open country with scattered palms and view of 200 yards to right and 100 yards to left.
- 3.0 Road continues west as described.
- 3.1 Distant mountains seen east of north, road enters thick woods on the left; on right, line of forest closes in to 100 yards.
- 3.3 Road meets trail from northeast and turns to left, running south of west through thick woods on both sides; road consists of two parallel trails.
- 3.4 Road turns to left and runs west of south; soil very red; thick underbrush on both sides obscures view.

- Road turns to right and runs southwest as described; scattered palms appear on right. Miles from Cu-
peyes Arriba.
3.9
- Road turns to left and runs west of south as described. 4.0
- Road turns to right and runs south of west as described. 4.1
- Fork. Right trail runs west 100 yards and is blocked by wire fence. Take left trail, which runs southwest, scattered palms on both sides with thick underbrush. 4.3
- Trail branches from right of road, running west 100 yards to a house, San Francisco; other house of this finca 100 yards northwest. From above branch road continues southwest as described. 4.4
- Road crossed by trail running north to San Francisco. 4.5
- Road meets well-worn road on the right from the north (San Francisco). Road turns to the left and runs south parallel to wire fence on right; underbrush and scattered palms on both sides; 100 yards from the fork road turns to the right and runs south of west, leaving fence on the right running north of west. 4.6
- Road fork. Left road extends southwest. Right road taken, which becomes a trail running west. 4.7
- Trail turns to left and runs south of west through thick woods. 4.8
- Trail continues as described. 5.0
- Trail turns to left and runs west of south; is crossed by small path running east and west. 5.1
- Trail turns to right and runs south of west through thick woods on right; scattered woods, palms, and underbrush on left. 5.2
- Trail turns to left and runs southwest, scattered woods and palms with view of 50 yards; open country and scattered palms on left with view of 100 yards to thick woods. 5.5
- Trail turns to right and runs west; soil very red. Underbrush and scattered palms on both sides with view of 25 yards to right and 50 to left. 5.6
- Trail turns to left and runs south of west. Soil yellow. Scattered woods and palms on right. Underbrush and palms on left, with view of 50 yards. 5.8
- Trail continues south of west as described. 6.0
- Trail turns to left and runs southwest as described. 6.6
- Small path branches from right and extends west, beyond which another path crosses running east and west. 6.7

Miles from Cu-
peyes Arriba.

- Trail turns to left and runs south, becoming winding through forest of guano and corajo palms; underbrush on left.
- 6.9
- 7.0 Path crosses running northwest and southeast, beyond which trail continues as described.
- 7.1 Trail turns to right and forks; right path runs south of west, left trail taken which runs southwest through palm forest; soil red. Path branches from left and runs south.
- 7.2 Three paths branch from right, uniting into one and running north, beyond which palms become more scattered, admitting view of 25 yards to right and 50 yards to left.
- 7.4 Path branches from right and runs northwest, beyond which trail becomes winding and stony in places; soil very red; thick underbrush obscures view on both sides.
- 7.6 Trail turns to right and runs south of west as described.
- 7.8 Trail turns sharply to right and runs north of west.
- 7.9 Trail turns to right and runs west of north.
- 8.1 Trail turns to left and runs north of west.
- 8.2 Trail turns sharply to left and runs southwest.
- 9.0 Trail turns sharply to right and runs northwest through clearing 10 feet wide in thick woods.
- 9.4 Trail turns sharply to left and runs southwest, soil reddish; scattered woods and thick underbrush.
- 9.6 Trail meets wooden fence on right and then passes through gate in wire fence, beyond which trail continues southwest through thick woods; brown soil.
- 9.7 Trail meets corner of wire fence extending north of east and south of west. Turns to right and runs south of west parallel to fence on left. Thick woods on right. Clearing 100 feet wide to thick woods on left.
- 10.0 Trail turns to right and runs southwest through thick woods.
- 10.1 Trail meets fence corner on left, turns to right and runs north of west parallel to fence.
- 10.2 Meets wooden and wire fence on right inclosing an acre of cleared land containing burned stumps, beyond which trail turns to left and runs west, passing low swampy area in scattered woods on right. Parallel wire fence and thick woods continue on left.
- 10.5 Lane on left 10 feet wide running south 0.3 mile to occupied house on east, finca El Caramelo. Beyond lane trail becomes a well-worn road, which continues

west in brown soil through thick woods parallel to wire fence on left. Miles from Cupeyes Arriba.

Road forks. Public road turns to right and runs north of west. Take left hand road which turns to left, runs southwest and in 25 yards enters gate in wire fence running east and north of west. This is finca Las Artemisas. After entering gate, road turns to right and runs west through thick woods with heavy underbrush on left. 10.9

Road passes through circular open area in woods, turns to left and runs south of west through scattered woods. 11.1

Road forks. Right road winds southwest 0.5 mile to occupied house, Sabana. Take left-hand road which runs west of south. Scattered woods and underbrush, with view of 50 yards on left. 11.1

Road turns to right, runs southwest through open country, with scattered palms and view of 300 yards on both sides. 11.2

Road turns to right and runs south of west through scattered woods, thick underbrush preventing view. Several paths from right of road lead east to finca Sabana about 100 yards. 11.5

Road turns slightly to left and circles left and then right through scattered woods. Road crosses by several small paths from Sabana. 11.6

Crossroads. North road runs 150 yards to good well and watering trough on left, beyond which is gate in wire fence. Beyond gate winding trail extends through scattered woods 500 yards west of north past large grove of mango trees to principal house of Las Artemisas. From the crossroads a road leads south about 700 yards through scattered woods and gate in wire fence to the camino Real (Ciego de Avila-Camagüey), at a point east of Las Mercedes. From the crossroads take a road which continues south of west, with scattered woods and view of 100 yards on right. On left open country and view of 0.2 mile. 11.7

Road crossed by two paths running northeast. Road turns to right and continues west through scattered woods and thick underbrush. 11.9

Road meets trail from northeast from second gate of Las Artemisas, turns to left and runs south of west through open country, with scattered corajo and guano 12.0

Miles from Cu-
peyes Arriba.

- palms and view of 100 yards to 0.5 mile on right and 0.2 to 0.5 mile on left.
- 12.6** Road passes through gate in wire fence extending north and south, turns to right and runs west through scattered woods and palms.
- 13.1** Road meets the camino Real (Ciego de Avila-Camagüey), running north of west and south of east, continues north of west parallel to wire fence on left. Good road in reddish soil. On right thick woods, guano and corajo palms. On left corajo palms and view of 0.2 mile.
- 13.3** Path branches from the right and extends northwest. Road continues in same direction. Woods thin on right.
- 13.3** Road bends to left and runs south of west as described.
- 13.4** Trail branches from left and runs 0.1 mile east of south to occupied house at finca El Corojal. Another house of same name 0.1 mile south of west from first house. Road turns to right and runs west through forest of corajo palms, with view of 100 yards to right and 50 yards to left.
- 13.8** Mud hole in road. Wire fence on left.
- 14.0** Road continues west parallel to wire fence on left in reddish soil through forest of corajo palms. View of 50 yards to right and 25 to left.
- 14.1** Road turns to left and runs south of west. Soil becomes brown. Open country with scattered corajo palms, view of 100 yards to right and 0.1 mile to left. Parallel wire fence on left continues.
- 14.4** Road crosses small dry run extending north and south. Turns to right and runs west; soil becomes sandy. Parallel wire fence on left continues.
- 14.5** Road becomes sunken. Mud hole 100 feet long. Good trail passes around it on right, beyond which road continues through forest of corajo palms with view of 50 yards on each side.
- 14.6** Path from right runs 0.1 mile north to house La Guinea. Road continues west in reddish soil and sunken.
- 15.1** Road sunken and continues west through thick woods.
- 15.2** Road crosses large dry run, sandy bottom, gradual slopes. West of crossing road divides and runs west as two parallel roads. Small dry run crosses north road and runs between the two roads for 300 yards.
- 15.6** Road becomes low for 100 yards, crosses small dry run. Soil red. Wire fences on both sides, thick woods and

underbrush on left, scattered woods and underbrush on right. Miles from Cupeyes Arriba.

Road turns to right and runs west. Reddish soil. 16.4
 Fences on both sides continue. On left, lane branches south, running 1.5 miles to Balboa. Road continues west; after 100 yards passes house on right (north) of Guanajagua.

Finca on left, La Loma. Woods on left now disappear 17.1
 and open wide view to southwest. Road continues west.

Road reaches crest of hill, offering wide view in all 17.8
 directions. Ciego de Avila visible 1 mile to west; water tank of Cuba Company Railroad visible 600 yards to south.

Road now descends 50 feet and crosses Menchaca Creek 18.0
 over iron truss bridge 25 feet long, capable of sustaining any army transportation, and with masonry abutments at either end. On left (east) bank of creek there is a spring 25 yards north of bridge, and a curbed well same distance south of bridge; 300 yards beyond bridge, 50 yards to right of road, and in a pasture, is a good well and remains of Spanish baths.

Ciego de Avila. 19.0

ROAD No. 18.

SAN FELIPE—JATIBONICO DEL NORTE—LA LEGUA—PASO REAL DEL
 JATIBONICO.

General direction: NW. Distance: 13.7 miles.

IN GENERAL.

From San Felipe to La Legua the trail passes over the Sierra de Jatibonico and is passable for pack transportation only. From La Legua to Paso Real the road is rough, overgrown with underbrush, soft, and cut up with ruts, passable in dry season for wheeled transportation. From San Felipe to Jatibonico (del Norte) the trail passes through hilly grass country. From Jatibonico (del Norte) to La Legua the trail passes over the main range of the Sierra de Jatibonico, through thick forest and is very rough. From La Legua to Paso Real the road passes through woods with an occasional stretch of open grass country.

The Río Jatibonico del Norte flows underground through Sierra de Jatibonico. The outlet on the north side of the range is about 25 feet wide and 60 feet to the roof; unable to explore the river to any extent owing to the depth of water, which was 20 feet deep at outlet.

The range is honeycombed with caves, many of which upon being explored lead into the river at different points. These caves have been used in the past, as there are numerous indications of their having been utilized as camping places. They would make excellent hiding places and extremely difficult to approach, as there are no means of communication except through the forest or up the river bed.

IN DETAIL.

Miles from San
Felipe.

- Trail leaves San Felipe running northwest.
- 2.1** Trail crosses small stream, Río de las Chambas, 15 feet wide and 1 foot deep, clear water, rocky bottom, banks 20 feet high and 50 feet across; approaches steep, narrow, rocky, and washed out, passable for pack transportation only.
- 4.7** Trail crosses small stream 20 feet wide and 1 foot deep, clear water, sandy bottom, banks 25 feet high and 75 feet across; approaches steep, narrow, and washed out, passable for pack transportation only.
- 6.2** Trail crosses the Jatibonico del Norte, a stream 75 feet wide and 1 foot deep at ford, clear water, gravel and rock bottom, banks 30 feet high and 100 feet across; approaches steep, narrow, and washed out, passable for pack transportation only.
- 6.6** Jatibonico (del Norte); one small store and three houses.
- 7.0** Trail crosses small stream 10 feet wide and 6 inches deep, clear water, gravel bottom, banks 10 feet high and 60 feet across; approaches washed out; passable for pack transportation only.
- 8.3** Trail crosses small stream, 10 feet wide and 6 inches deep, clear water, gravel bottom; approaches washed out; passable for pack transportation only. From this point to La Legua the trail passes over the main range of the Sierra de Jatibonico, through dense forest; is very rough and rocky, with numerous very steep grades. Passable without difficulty for pack transportation.
- 11.9** La Legua, on Morón-Santa Clara road, west of Paso de Jatibonico (Paso Real). From La Legua the road runs west toward Yaguajay, province of Santa Clara, and is passable as far as visible for all wheeled transportation. From La Legua to Paso Real the road is rough, overgrown with underbrush, cut up with ruts, and filled with dried-up mudholes; passable in dry season for all wheeled transportation.

Road crosses small stream 6 feet wide and 6 inches deep, nearly dry, muddy bottom, passable without difficulty for all wheeled transportation. Miles from San Felipe. 12.1

Road crosses the Río Jatibonico del Norte, 100 feet wide and 18 inches deep at ford, clear water, rocky bottom, banks 40 feet high and 75 yards across; approaches steep and narrow; passable without difficulty for wheeled transportation. 13.6

Paso Real; one small store, 3 scattered houses. Road from Paso Real runs east to Chambas, is rough, overgrown with underbrush, filled with numerous dried-up mud holes, and cut up with ruts; passable in dry season for wheeled transportation. 13.7

ROAD No. 19.

LA GLORIA—SANTA ROSA.

General direction: NW. Distance: 11 miles.

IN DETAIL.

La Gloria. Take road west.	Miles from La Gloria.
Cross bed of small stream.	2.0
Take left-hand road running northwest. Right-hand road running north leads to Piloto.	4.0
Santa Rosa. Sawmill. Right-hand road to Guanaja. Left-hand road to Camagüey.	7.0
Palm City. American settlement; few houses. Tramway to right leads to Guanaja. Return to Santa Rosa, 2 miles.	9.0
Santa Rosa.	11.0

ROAD No. 20.

SAN FRANCISCO DE SÁNCHEZ—SAN DIEGO—SAN RAMÓN—SAN PABLO—SAN AGUSTÍN—GASPAR—LA COLONIA.

General direction: NE. Distance: 16.2 miles.

IN GENERAL.

1. San Francisco de Sánchez to Agustín.—A trail passing through forest. Flooded in rainy season. Difficult for horsemen at all times.

2. San Agustín to La Colonia.—A good road, worn in places, running through forests. Numerous arroyos render the passage of wheeled transportation during rainy season difficult.

IN DETAIL.

Miles from San
Francisco de
Sánchez.

- Road leaves finca at principal house, runs south of east parallel to wire and wood fence on left. At 40 yards trail branches to right and turns south for San Joaquín 2.7 miles; 35 yards beyond the road forks, right-hand
- 1.0 trail joins other trail for San Joaquín; prolongation of road continues 2.5 miles east to Las Mercedes; take left-hand trail, which passes through gate in fence, crosses field and emerges through other gate and forks (left branch leads north 3.5 miles to San Ramón). Take right-hand trail, which bears away from fence on right for 50 yards to fork (right branch leads south of east parallel to fence to Martín Díaz 2.5 miles). Take left-hand trail to northeast through woods, thick on right, scattered on left, and continues as winding well-worn trail in sandy gray soil through 12-foot clearing in woods; wheel tracks visible.
 - 2.0 Trail in sandy gray soil continues to wind northeast through thick woods with overhanging branches in places, overgrown with grass; in others, hard mud, to irregular opening 200 yards diameter. Occupied house on left surrounded by wooden fence and bananas, beyond which trail forks (eastern branch leads 1 mile to Martín Díaz and northern branch 2.2 miles to San Ramón). This is the principal house of San Diego; the other house is 0.7 mile north on west side of San Ramón road. San Diego seems to be a poor place; soil is poor, no grazing lands, few cattle and crops. Trail leaves finca just east of principal house, running north. (Eastern trail leads 1 mile to Martín Díaz and southwestern trail leads 2 miles to San Francisco de Sánchez).
 - 3.0 Trail well worn, but with wheel tracks indistinct, leads north through clearing 4 yards wide in thick wood.
 - 3.7 Trail runs parallel to new wire fence on left for 100 yards. Occupied house on left (west) is part of finca San Diego. About 100 yards beyond house passes through gate in fence (which crosses trail) and winds northward through thick wood containing guano palms.
 - 4.5 Woods slightly more scattered; gate in fence across trail which now for 0.2 mile passes through clearing 3 yards wide in thick woods. Peculiar bent palm leaning north on right of trail beyond which woods become more scattered. Trail bears to northwest, meets trail from southeast which leads to Martín Díaz, and passes between

two houses (house on left vacant); San Ramón, poor finca, soil poor, grazing poor, few cattle. Beyond houses trail turns to left and runs 2 miles to San Pablo. Leave finca by trail running west between the two houses (trail running southeast divides at 40 yards; right branch 2 miles south to San Diego; left branch for Martín Díaz).

Well-worn trail on reddish soil through clearing 4 yards wide in woods. At 250 yards road forks. Take right branch, which continues in a general western direction, and after 0.2 mile becomes red clay through thick woods. 5.5

Trail continues as just described for 0.7 mile and then meets and follows wood and wire fence with underbrush and scattered woods on right, with a view of 200 yards, and thick woods on the left, to San Pablo. Finca consists of two houses, one on each side of the road, north house only occupied. Poor place; soil poor, little grazing land, few crops or cattle; bees principal industry. Trail leaves San Pablo running southwest from between the two houses (road running northeast from finca leads 2 miles to San Ramón). 6.5

Trail runs southwest from finca parallel to fence on right (north). At 150 yards good well on right and trough for watering stock. Trail turning to right enters thick woods, runs 200 yards northwest and forks (left trail running south of west 3.2 miles to San Rafael). Take right-hand trail to northwest through clearing 30 yards wide; well-worn trail, red soil, scattered guanós, three large clumps of bamboos 50 feet high in low marshy ground on right. 7.5

Trail continues through woods northward. 8.5

Passes through fence and continues north through clearing 20 feet wide in scattered woods, meets wire fence on right and follows it for 600 yards. On right two cattle pens with adjoining gates; good well and watering trough. Pass through two gates in wire fences and enter large opening with one house on the east and one on the west and a very large ceiba tree. This is San Agustín; poor place, soil very red and poor; the two families living there have few cattle or other stock and grow few crops. Region unsuitable for grazing. From this finca trails extend in four directions; north 2.5 miles to Cabezas; northeast 3.5 miles to Salvial; 10° east of south 2 miles to San Pablo; northwest to Santa Isabel 5.7 miles, and to Gaspar 5 miles. 8.7

Miles from San
Francisco de
Sánchez.

Miles from San
Francisco de
Sánchez.

- Road extends from 20 yards north of large ceiba tree, 30° west of north; road straight in very red soil, well marked by wheels; scattered woods, guanos and corojos on both sides.
- 9.2**
- 9.7** Small trail from left, 3.5 miles to Echemendía. Road continues in former direction for 350 yards to fork (left branch 4.5 miles to Santa Isabel). Take right-hand branch leading north, well marked in red clay.
- 10.2** Road bends to right and enters clearing 3 yards wide through thick woods; general direction northeast.
- 10.7** In same woods, general direction north.
- 11.2** Crosses dry run at right angles and enters clearing of 100 yards diameter and 75 yards farther is crossed by well-worn trail running 10° north of east to Cabezas, 1.2 miles.
- 11.7** Twenty-five yards from fork road enters scattered woods of guano and corajo palms. At 50 yards a trail branches off to left, northwest; take right-hand trail, which continues in original direction, well worn; brown soil, slight wheel marks; 125 yards farther trail is joined by a well-worn road running southeast 1.2 miles to Cabezas. Crosses large dry run, sandy bottom, banks 4 feet high and 12 feet apart, with direction northeast to southwest. Well-worn road branches off to left and runs southwest (probably for La Güira, 3 miles, and Santa Isabel, 4 miles); 120 yards farther road crosses dry run, and 260 yards beyond last dry run road forks. Take right-hand road northeast through palm forest; road now turns northwest and meets well-worn trail from northeast.
- 12.2** Excellent road running north of west; light-colored soil; abundant corajo palms; after 500 yards crosses dry run whose direction is from northwest to southeast; 75 yards beyond run road enters clearing 50 yards in diameter at farther edge of which a trail branches off to the left (southwest), and 50 yards farther a dry run is crossed extending northeast and southwest. Road continues winding in general northern direction through clearing 3 yards wide in thick forest.
- 12.7** A good road branches off to the left. Main road continues winding through thick woods; after 100 yards crosses large dry run, sandy bottom; 450 yards from dry run road reaches occupied house on left, El Caimital, and 150 yards farther second house of same finca on right, from which road runs north through corajo forest and excellent road.

Road continues excellent, northeast through palm forest, and after 180 yards southernmost house of finca Gaspar (occupied) is 50 yards east of road; 300 yards farther road forks; northeast road continues 0.5 mile to railroad station and siding at Gaspar; south road well worn by bull carts is a lumbering road; northwest road not so well worn is road to La Colonia, Santa Rita, and Ciego de Avila. Road begins 0.5 mile southwest from railroad station of same name, at junction of four roads. Northeast road 1 mile to railroad station; south road is lumbering road leading into the forests; southwest road leads 4.5 miles to San Agustín, and 6 miles to Santa Isabel; northwest road 3 miles to La Colonia.

Miles from San
Francisco de
Sánchez.
13.2

Excellent road through forest of corajo palms; 100 yards farther ruins of burnt house on left and 100 yards still farther crossroads. Road enters forest, general direction northwest; good road through badly rutted brown soil.

14.2

Straight road northwest through forest; badly rutted; many stumps in road.

15.2

Lumberman's rude hut on left; road badly rutted, 1 foot deep in places.

15.9

Straight road continues northwest through forest, crosses small dry run, and at 25 yards emerges from forest into scattered woods, meets government telegraph line (2 wires, Camagüey-Ciego de Avila) and road from northeast (600 yards to railroad); also road from south (1.2 miles to La Güira). Road now follows telegraph line through thick woods; 250 yards farther cultivated land on both sides, and 250 yards farther eastern house (unoccupied) of La Colonia on right of road, followed by three more houses about 150 yards apart.

16.2

ROAD No. 21.

CEBALLOS—ROSARIO MARÍA.

General direction: NW. Distance: 10 miles.

IN GENERAL.

An unimproved dirt road practicable in dry season for wheeled transportation. In wet season the stretch between blockhouses 43 and 44 forms continuous mudholes because of low ground. Crossing of Arroyo Roble difficult at all seasons because steep, winding, and narrow, needing much cutting away.

IN DETAIL.

Miles from
Ceballos.

From Ceballos two roads are available which run parallel on each side of railroad. Take road on west side of railroad because of better crossing of creek at blockhouse 40.

Leave Ceballos by road leading west, cross railroad 100 yards north of railroad station, turn to right and follow road north with railroad on right (east) and orange groves on left (west).

- 0.5 Cross dry run, good approaches, bottom 5 feet below grade corduroyed with logs.
- 1.0 Road continues between orange groves and railroad as heretofore. House and windmill on left.
- 1.75 Road continues as heretofore. Cottage in orange grove 100 yards to left of road.
- 2.0 Blockhouse 43 on right. Grounds as far as blockhouse 44 low, now dry and rough. In wet season continuous mudhole.
- 3.0 Manguito. Siding of Júcaro-San Fernando Railroad. Three houses and store. Spanish barracks known as "45½," in good preservation and occupied by people. The barracks consist of two buildings, lower story of stone, upper story of wood, one building 20 by 60 feet, the other 20 by 40 feet; would hold 200 men at a pinch. Side walls of a third unfinished building also standing. Water from wells, should be boiled.
- 3.5 Wagon trail branches off to left, 5 miles to Candelaria.
- 4.5 Las Piedras (Sandobal), six houses and store. Road turns to northwest, leaving southernmost house of Sandobal on left.
- 5.0 Dense woods on left, sugar-cane field on right, road rough, many stumps.
- 5.5 Cane field on right ends and on edge of field one occupied house, Guayaba; 100 yards farther road enters fairly open savanna with guano palms. Road continues in northwestern direction.
- 6.0 Trail leads off to left. Road meets wire fence and enters lane with wooden picket fence on left and wire fence on right, and 400 yards farther passes through gate. Here fence on right ends, road continues in original direction near and parallel to wooden fence on left.
- 6.5 Occupied house, finca Juanita, on right, 300 yards off the road. Occupied house, finca Las Piedras, 300 yards off road on left.
- 7.0 Fence on left ceases. A trail branches off to left.

Well-worn trail crosses road from northeast to south-west.	Miles from Ceballos.
Wire fence on each side of road.	8.0
Three houses on left, a store called tienda Nicolas, and two houses, finca La Alegría. Opposite last of these houses gate in wire fence on right leads 0.5 mile north to small finca, Consuelo; house not visible from road. Inside gate in fence good camping ground for a regiment with grazing, wood, and water immediately at hand.	8.5
Arroyo de Robles, locally known as Río Viejo. Eastern approach first steep and rocky, then winding, narrow, sandy, and obstructed by logs deposited last high water. Bottom stony and firm, ford almost dry now. Small pools of clear water on either side, large pools of clear water farther down; never go dry. Have now 10 feet of clear water. Western approach narrow and sandy and followed by ascent of 100 yards with slope of 25°. Impracticable for wagons in present condition, needs cutting away and clearing out.	8.7
Occupied house on right, finca Casa Blanca, on right bank of Arroyo Naranjo which 0.5 mile below joins the Río Viejo and has clear, deep pools with good fishing.	9.0
Pass occupied house.	9.1
Wagon trail joins from left (from Marroquí) and 100 yards farther road crosses Arroyo Naranjo; low banks, good approaches, sandy bottom, clear water, no obstacle; running water 10 inches deep and 6 feet wide; 200 yards farther one house, finca Rosario María; and wagon trail to right leading northwest to Morón ascends hill on which are remains of Spanish fortification called Cuartel Naranjo, commanding road and crossing creek.	9.5
	10.0

ROAD No. 22.

SANTA LUCÍA—SAN PEDRO.

General direction: W. Distance: 5.5 miles.

IN GENERAL.

For the most of the distance this is a road through a thick forest, passable for all kinds of transportation during the dry season, but probably impassable in wet season on account of soft mud.

IN DETAIL.

Miles from Santa
Lucía.

- Trail leaves Santa Lucía west of house and after 0.1 mile runs south of west and meets road on left which branches from the camino Real (Morón-Camagüey) about 0.1 mile to south. Well-worn road in brown soil.
- 0.3** Road turns to right and runs north of west; scattered guano and corajo palms on both sides. Fork. Right branch runs northwest; said to lead to El Caracol, 3 miles. Take left branch, which runs south of west; on right, thick woods and scattered corajo palms and view of 50 yards; on left, view of 0.2 mile.
- .5** Thick woods on both sides.
- .6** Road meets trail on left from east of south, turns slightly to right, and continues northwest; well-worn and deeply rutted in places; enters thick woods and winds northwest.
- 1.0** West.
- 1.3; 1.7** Northwest and southwest through forest.
- 2.0** Continues winding southwest through forest.
- 3.0** Continues winding southwest through forest.
- 3.2** Road forks in forest. Right-hand road runs north of west. Take left-hand road, which continues southwest and then forks again, left-hand road running southeast; take right-hand road, which continues southwest through forest.
- 3.7** Road passes through gate in wire fence, passes one
- 3.8** occupied house, Santa Ana, and then forks. Right-hand road leads southwest. Take left-hand road, which runs west of south through two pastures with cornfield of about 1 acre on right.
- 4.1** Enters gate in wooden fence running east and west. Road turns to right, runs parallel to fence on right through thick woods.
- 4.3** Road leaves fence on right, turns to left and runs southwest and becomes trail in brown soil.
- 4.6** Road passes a clearing of about 1 acre on left and then
- 4.7** passes through gate in fence, beyond which trail winds southwest; thick woods on right, scattered woods with view of 50 yards on left.
- 5.0** Road meets wire fence extending east and west, turns to right and runs west parallel to fence on left.
- 5.1** Road meets another wire fence extending north and south, passes through gate, bends to the left and then to the right in the form of the letter "S," and extends as

a well-worn trail southwest. West of last gate is occupied house, finca La Machina, near which is well and good watering trough. Miles from Santa Lucia.

Road enters gate in fence, passes into the Trocha Camagüeyana; turn to the left and find two occupied houses 100 yards west of road San Pedro (10.8 miles northeast of Ciego de Avila). 5.5

ROAD No. 23.

LA LOMA—GUÁIMARO—PALO SECO (GUAMO).

General direction: NE. Distance: 5.8 miles.

IN GENERAL.

Fairly good dirt road in dry season. Río Guáimaro (Río Jababo) is forded three times between Palo Seco and Guáimaro. Road from 40 to 60 feet wide; fenced both sides with 4-strand barb wire. Practicable for all transportation in dry season, but practically impassable for anything but pack animals during the rainy season. After unusually heavy rains road has been known to be impassable for horsemen. Country between Palo Seco and Guáimaro is mostly open grassy pasture, slightly rolling. The fords are good during dry season and could be made so during the rains by taking advantage of materials at hand. A large force could camp anywhere along stream. Excellent grazing; wood for fuel and repair of fords and road near at hand. This stream was not affected to any extent even by the drought of 1907. Route covered after several weeks of rainy season.

IN DETAIL.

Road runs north. Gentle slope to foot of hill. Grassy hills practically clear of brush on both sides of road about 150 yards distant. Patrols on crests could examine country for 1 mile to east and west. Miles from La Loma.

Arroyo flows southeast. Wooded along banks. Good crossing. Road bends westward. Open country to east and west. On north side of arroyo road passes through a cut 4 to 6 feet deep; walls of rotten rock. Clear field of fire on both sides of road for 0.3 mile. 0.7

Arroyo, banks 8 feet high, bad approaches; ford 12 inches deep, hard bottom; materials for repairs at hand. Road bears more to west. 1.0

Fenced road (4-strand barb wire) leaves road to south-east to Jobabo 5 miles. Road turns more to west. 1.2

Miles from La
Loma.

- Enters Guáimaro at southeast corner of town. Leaves north.
- 1.4 north.
- 1.8 Cross Guáimaro River. Stream 20 feet wide, 2 feet deep; sluggish, hard bottom. Banks 15 feet high, with bad approaches. Stream flows from west to east. Wooded along stream.
- 2.0 Stream flows parallel with road 50 to 100 yards to west. Two very bad mud holes. Two houses, finca Buena Vista, 100 yards east of road. Materials for repairs at hand.
- 2.2 West of road finca La Luisa. House 300 yards from road. Rolling grassy pastures perfectly clear of brush to timber line on crest of hills, 1,200 yards. Hills about 150 feet higher than road. East, grassy pastures to stream 300 yards. Slightly wooded along stream. Grassy hills 100 feet high beyond. As hills on both sides command road within effective range of small arms they should be examined before traversing it. Finca Llamas. From here, Mount Desiada (wooded peak) bears north, distant 6 miles.
- 2.4 Arroyo, bad crossing. Road practically a deep bog for 100 yards west. Materials for repair of road in woods 400 yards west.
- 2.8 House with tile roof on low hill 300 yards east of road. Road runs northeast and southwest.
- 3.0 Cross Guáimaro River. Gravelly bottom, 1 foot. Stream 10 feet wide. Extreme fluctuation of stream 7 feet. Sluggish. Banks 10 feet high, rocky, good approaches. Stream flows southeast. Bad mud hole 100 yards south of crossing.
- 3.2 Bad mud hole, grassy pastures east and west of road; practically level and free from woods or brush.
- 3.5 Bad mud hole. Light woods come up to road on both sides.
- 4.0 Arroyo, muddy crossing.
- 4.5 Bad mud hole. Materials for repairs at hand. Two native houses, 50 yards east of road.
- 5.0 Pasture to east of road. Native house at edge of woods, 600 yards. Three native houses west of road. Light woods 300 yards.
- 5.8 Palo Seco (Guamo).

ROAD No. 24.
LA CAROLINA—JAGÜEYAL.

General direction: SE. Distance: 6 miles.

IN GENERAL.

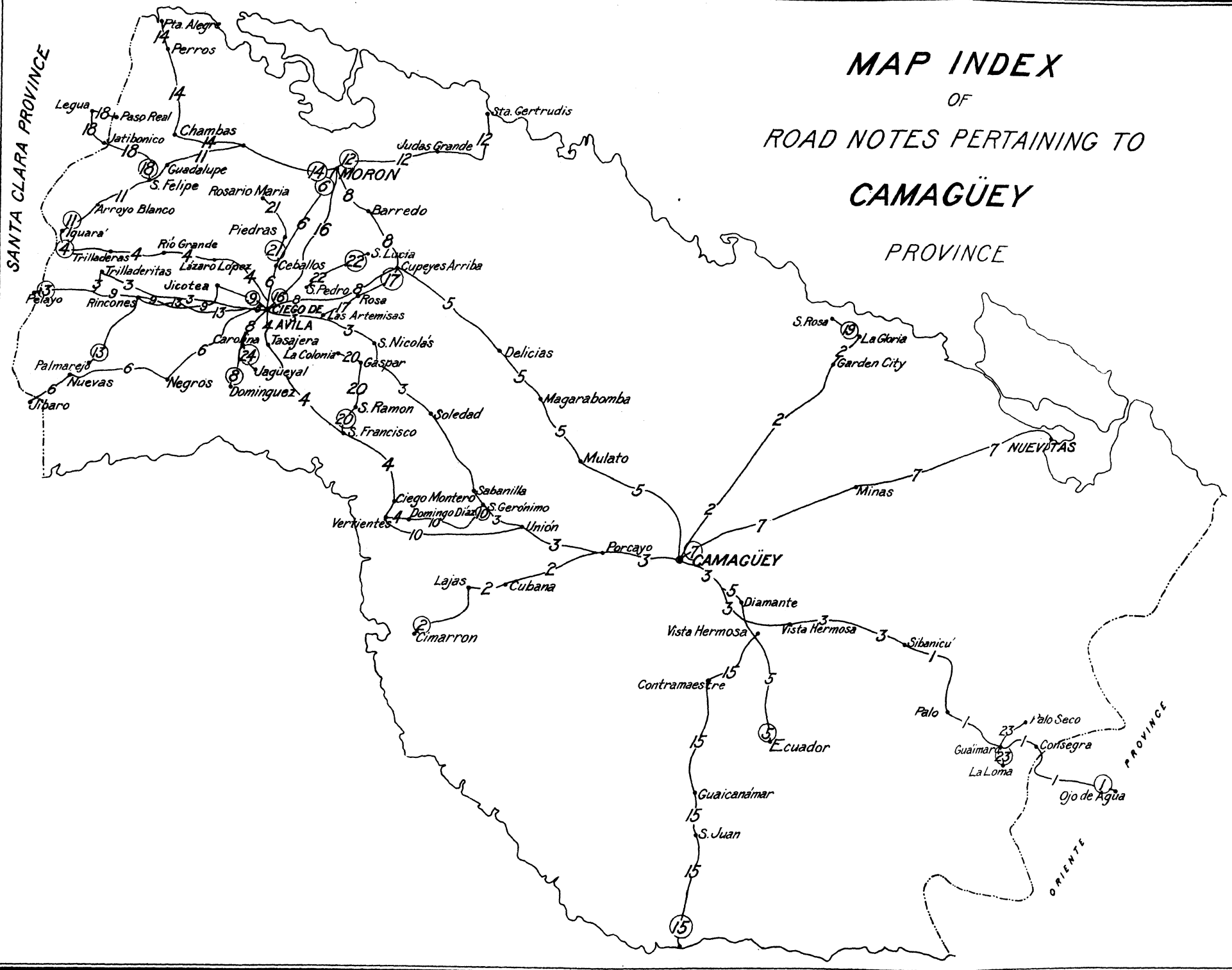
The road is unimproved and follows a railroad switch, construction of which has been discontinued. Ties have been laid as far as Jagüeyal, however. The road would be passable by all classes of wheeled transportation in dry weather, but in wet weather after rains of any severity would hardly be passable by any wheeled transportation. The soil is red clay.

There is no water supply at present on the road, the only well, one at Silvera, being broken. The bordering land would afford ample camping facilities otherwise, and there is a large water supply at both La Carolina and Jagüeyal. A poor class of grazing could be obtained for the animals of a command.

IN DETAIL.

Road leaves Carolina running southeast.	Miles from La Carolina.
House on north side of road.	1.7
Passes house on north side of road.	2.0
Crosses road running north to Los Charcos.	3.0
Silveira.	3.5
Crosses telegraph line running north and south. This is the eastern boundary of the Stuart Sugar Company.	4.0
Crosses wooden bridge, about 20 feet long, in good repair at present, and could be kept in good repair from material close at hand.	4.7
Elvira.	5.0
Reaches Jagüeyal, batey of the Júcaro and Morón Sugar and Land Company. From here there is a trail to the coast, which is a continuation of the road described.	6.0

MAP INDEX OF ROAD NOTES PERTAINING TO CAMAGÜEY PROVINCE





PROVINCE OF ORIENTE.

ROAD No. 1.

BARACOA — CAJOBABO — YATERAS — GUANTÁNAMO — SANTIAGO DE CUBA — PALMA SORIANO — BAIRE — JIGUANÍ — BAYAMO — CAUTO EL EMBARCADERO — VICTORIA DE LAS TUNAS — OJO DE AGUA DE MELONES.

General direction: W. Distance: 292 miles.

NOTE.—During 1908 a metaled road was constructed connecting Baracoa and Sabanilla.

IN GENERAL.

1. Baracoa to Cajobabo.—Said to be the most difficult trail in Cuba. Passes over the high mountain ranges which run east and west. The trail runs for some distance along the Jojó (or Jobó) River, which must be forded twenty times. The trail is very narrow and rocky, and grades are steep. It is so narrow at places that pack animals have difficulty in passing. During the rainy season this trail is all but impassable. This trail follows telegraph line.

2. Cajobabo to Yateras.—This trail follows the southern coast, at times along the beach, but usually along the top of ledges parallel to the sea. It also at times runs inland, separated from the sea by mountains. It passes through many cañons in the mountains which were at a remote period the bed of streams, now dry. This trail follows the telegraph line.

3. Yateras to Guantánamo.—From Yateras to San Antonio is along the Yateras River bank and across high mountains, heavily timbered. From San Antonio the trail becomes a wagon road, which runs over open cane country. The road is not well drained, and during the rainy season would be difficult passage for wagons.

4. Guantánamo to Santiago de Cuba.—Suitable for light-loaded wagons. Difficult during rains.

5. Santiago de Cuba to Palma Soriano.—A fairly good dirt road, suitable in dry season for light-loaded wagons.

6. Palma Soriano to Bayamo.—A road suitable for light-loaded wagons in dry season.

7. Bayamo to Ojo de Agua.—A fairly good dirt road; passes over low country. Suitable only for light-loaded wagons in dry season.

IN DETAIL.

Miles from
Baracoa.

- Leave Baracoa going southeast on new macadam road, passing Batería de Matachín, an old Spanish fort. Cross Río Miel (or Sabanilla) at a bridge known as La Pasada.
- 1.0** Cabacú. Pass old tienda de Guadalupe, Paso de Paulino, and Paso de Cuba, latter known as La Casa de Cavorí.
- 7.0** Sabanilla. Country mountainous. Continue south on trail. Pass Cuesta de Acana. Trail passing over high and steep mountains; travel difficult; trail following water courses.
- 15.0** Salto del Indio.
- 22.0** Veguita.
- 27.0** Cajobabo, opening of a large cañon in mountains, through which runs a creek. Trail runs west.
- 29.0** Another cañon, through which the Río Tacre empties into sea. Trail very sandy. Trail now ascends and runs west on top of a rocky ledge. To the north is a higher and parallel ledge of rock.
- 36.0** Trail descends to a place where the Imías River empties into the sea. This point known as Imías. Trail continues west, running parallel to sea, but 1,000 yards inland.
- 41.0** Trail turns south, passing through a cañon, the bed of Río Yacabo Abajo.
- 41.5** Mouth of river at sea. Place known as Yacabo. Location of two Spanish forts of coral rock situated on a high, rocky ledge, commanding the mouth of the river and the trail.
- 44.0** Cross rocky stream-bed, Arroyo de Máximo. River dry. Trail continues west along coast. Pass rocky dry bed of stream in cañon, Arroyo La Negra. Trail ascends to a ledge. A higher range to the north, 1,000 yards distant. Descend a steep, rocky ledge to dry bed of stream, Arroyo Siguato. Trail follows bed to north. Pass a fine spring in dry bed of this stream. River bed now sandy. Trail passes to left of a sugar-loaf
- 48.0** hill and reaches San Antonio del Sur. Leave village and pass through dense thicket. Pass through heavy timber. Trail separated from coast by range of mountains. Cross two small streams flowing to sea (south) and enter low, boggy marsh. Cross small stream and enter cañon. Enter boggy country again and cross three boggy inlets from sea.

Reach Baitiquirí; a telegraph station, scattered houses. Located on north side of a cañon that runs south to the sea. Location of a large Spanish blockhouse. Stream of water and camp site. Sierra Doña Mariana to the north and Lomas de Farallones to the northwest. Leave Baitiquirí and go through cañon to sea. Here is a small sheltered harbor. At sea end of cañon is a stone wall built by Spaniards for defense. From mouth of cañon trail runs west on a high ledge of rock parallel to sea.	Miles from Baracoa. 55.0
Reach mouth of Yateras River; 30 feet wide, 7 feet deep, good water; excellent camp site. Trail runs up on east side of river. Pass through a cañon and ascend mountains. Cross Yateras River and go northwest. Begin descent of mountains from a point where the Guantánamo valley can be seen.	61.0
San Antonio (Río Seco) sugar estate and town; small stream. Leave town going west and trail now becomes a wagon road.	81.0
Romelie sugar estate. Take wagon road west.	84.0
San Emilio sugar estate. Small village. Take wagon road west.	87.0
Jamaica. Leave Jamaica at south end of town on wagon road and cross Arroyo Hondo on steel bridge.	91.0
Cross branch of Arroyo Hondo on wooden bridge.	91.2
Cross Guantánamo Railroad.	91.5
Cross Guantánamo Railroad.	92.2
Cross Guantánamo Railroad.	93.4
A road branches to San Miguel sugar estate.	94.0
Cross narrow-gauge railroad of Santa María estate.	94.7
Cross Cuba Eastern Railroad.	95.4
Cross wagon road running west to Confluente and east to San Carlos and Santa Cecilia.	96.0
Guantánamo. Leave Guantánamo following a wagon road northwest; country open; good grazing. Cane growing to north of Río Bano.	97.0
Village of San Pré, on Guantánamo Railroad. Good camp site for large body of troops.	104.0
West terminus of Guantánamo Railroad.	104.5
Descend steep hill, cross Cuba Eastern Railway, and cross small stream.	106.0
Tiguabo on Jáibo River; also called Tiguabo River. Mountain known as Alta de Limonal to the north, Sierra de la Canasta to the south. Follow wagon road west. Pass hacienda Manantial and old sugar mill Taureau. Pass Arroyo de Piedras and Arroyo Abuela.	106.5

Miles from
Baracoa.

- Cross Corralillo River at location of old hacienda of same name.
- 113.0
- 116.0 Pass Spanish earthworks on north side of road. Cart road to south to Belona, 2.5 miles distant, on Cuba Eastern Railway.
- 117.0 Pass Hacienda Málaga and cross Río Macuriges (or Málaga).
- 119.0 Cross arroyo with steep banks; a bad crossing.
- 120.0 Pass Jurisdicción. Montes de Santa María to the north.
- 121.0 A trail runs south to Palmarejo.
- 123.0 Cross Río Grande de la Sabanilla at a point known as Paso de Tibe, and cross Cuba Eastern Railway. Cross stream called Deposito at settlement of same name. Here a cart road branches to Palmarejo and Palenque.
- 124.0 La Sabana. Cross Guantánamo (or Sabanilla) River
- 125.0 and Cuba Eastern Railway and pass Deseo.
- 125.2 A trail south.
- 126.0 A trail north.
- 128.0 A cart road north into river valley.
- 129.0 A cart road north.
- 129.2 La Maya.
- 131.0 Socorro. Road runs west along top of high ridge.
- 133.0 Songo (or tienda de los Cueros-duros). Cross railroad.
- 135.0 Cross Río Platanillos (or Ponupo) at old ingenio of Platanillos de Veranes. Ford good, but approaches steep and muddy. Pass old ingenio Jagüita de Baralt.
- 139.0 Cross Vegas de la Caoba. Cross Jagua River on steel bridge 100 feet long; also cross Arroyo Martín López.
- 139.2 Cross Río Guaninicúm at good ford near mouth of Arroyo Cacao. To the left is old ingenio Guaninicúm de Sánchez.
- 139.5 Cristo (or Santo Cristo).
- 143.0 Dos Bocas.
- 143.7 San Vicente. Road has followed railroad since leaving Cristo and continues parallel to railroad through a narrow defile, hills to east and west. A stream of water also flows near road through pass.
- 145.0 Boniato.
- 145.5 Old Santiago waterworks.
- 146.0 Cross railroad near Cuabitas.
- 146.5 Cross railroad.

Cross Río del Purgatorio. Cross railroad twice and cross Río Yarayó on Puente de Quintero.	Miles from Baracoa. 147.0
Santiago de Cuba. Leave Santiago de Cuba, crossing El Paseo de Concha and Arroyo Yarayó; road runs west.	148.0
Dos Caminos. Pass through a locality known as Las Enramadas, and pass Saos and Río Guaos (or Caimanes).	149.0
Hacienda El Pinal.	151.0
A trail north. Pass Sabana de Valiente, ascending the Sierra Maestre Mountains. Pass Vereda del Caimito and Loma de la Cruz. Pass San Isidro and cross Arroyos Melgarejo, San Antonio, and Santo Domingo, all small streams.	153.0
Cobre.	159.0
Leave El Cobre at northwest of town. Road runs northwest, ascending a hill, and passes between two mountains. Pass Encrucijada de Nimanima and Circuela, where a trail branches to Hongolosongo. Pass cafetal de Río Frío and cross arroyo of same name.	161.5
Cañas, location of old ingenio; river of same name, which is crossed twice. Trail to right to Yarayabo. Road turns west.	163.0
La Clarita. Road continues along south bank of Cañas River.	163.5
El Reposo. A road west to Dos Palmas.	164.0
Road turns north and continues in this direction to within 1.5 miles of Caney.	164.5
Cross Cañas River at rocky ford, 2 feet deep and swift.	166.0
Pass a store.	166.3
Cross Río Cauto, after passing old ingenio of Jicoteas, near the mouth of Río Cañas; ford good.	168.2
Cross small stream, Arroyo Palenque.	169.7
Pass Santa Rita and old ingenio Las Delicias del Tempú.	171.0
Caney, site of old ingenio of same name; also river of same name emptying into Río Cauto. Pass through uncultivated country to the north.	172.7
A road joins from Caney to Palma Soriano via La Cuchilla.	174.0
A trail south to Caney-Cobre road. Land cultivated in corn and bananas.	174.2
Reach river bank, and follow stream.	175.6
Pass Cerqueta. Cross river at a stony ford, water 3 feet deep and swift. Ascend a steep hill, passing	176.9

Miles from
Baracoa.

- sawmill and slaughterhouse, and enter Palma Soriano.
- 178.7** The road leaves from calle Martí (continuation of the road from San Luis) and goes northwest to the Cauto River. Cross the river at a rocky ford, water swift and about 30 inches deep in the dry season. Approaches steep, especially on the west side.
- 179.0** Road level; rough in dry season and very muddy in the rainy season.
- 180.4** Road for Caney branches to south; main road turns north up steep, rocky hill.
- 182.2** Pass Las Cuchillas de Cauto canteen; trail goes north to San Francisco.
- 183.2** Pass San José; house on south side of road.
- 184.2** Arroyo Blanco, canteen north of road; trail south to Caney.
- 184.3** Road forks; right turns north and west for Remanganaguas; main road continues to left.
- 185.0** Road continues west through country being cleared for cultivation.
- 187.0** Pass through Aguacate. Old hacienda of same name.
- 187.2** Trail southeast to Monte Oscuro, Caney, and Ramón de Guaninao, on the Caney-Bijagual road.
- 187.5** Trail northeast to Juan Barón on Arroyo Blanco-Remanganaguas road.
- 187.7** Trail south to Ceiba on Caney-Bijagual road. Road crosses small stream flowing north, Río Guaninao, water alkaline and very low in dry season.
- 189.0** Through Sitio; good grazing land.
- 190.0** Pass Las Tres Cruces, store; road continues through pasture land.
- 191.0** Pass store south of road; trail south to Guaninao.
- 191.5** Cross Lajas River flowing north at Lajas; 200 yards west of this point the road forks, the left continuing to Baire via Maffo, the right (telegraph road) turning north for 0.5 mile and then west. From this point
- 192.7** trail passes through a gate and goes to Remanganaguas. From this point to Mabio the road is practically straight and level through good pasture. The road is not much used, however; in the rainy season is almost impassable on account of mud, and in the dry season is very rough on account of being cut up when wet.
- 193.7** Pass Mantania; cattle ranch; small house south of road.
- 197.7** Mabio, large cattle ranch on east bank Contramaestre. Road crosses river at good ford to Doncella, large cattle

ranch extending to Ratонера. From here to Ratонера the road runs through pasture, level country; very muddy in rainy season.

Miles from
Baracoa.

Ratonera. At this point the road from Lajas via Maffo joins the telegraph road. Cross stream of good water. From here to Baire a good dirt road over level country. **203.2**

Baire (Santo Bartolome). Road enters town from east. Leave Baire going west. Pass old fincas La Salada, Granizo, and Caobas. Cross Río Jiguaní and enter Jiguaní. Leave Jiguaní on road running south-west, crossing by bridge the Jiguaní River. **206.7**

Pass old ingenio Caridad de Tamayo. Cross Arroyo Hondo and pass potrero de Cardoso on the right and ruins of old ingenio Sánchez on left. **214.0**

Santa Rita. Pass a finca called Cupey and a location known as San Antonio on the right, and reach finca El Jagüey. **216.0**

Cross Río Cautillo and pass through a tract of land known as El Horno. **219.0**

Chapala, a finca. Pass location of old ingenio San Pablo on the left and reach tienda de la Horqueta. **223.0**

Pass tienda del Guanábana on right and reach Bayamo. Another dirt road, running due west, connects Jiguaní and Bayamo. This road passes finca Retiro, Horqueta de Hato Nuevo, crosses Arroyo Hondo, passes Guacamaya and Palmarejo. Passes hacienda Menendez and crosses Río Cautillo. Passes San José, old ingenio Santa Gertrudis, finca Olivares, old ingenio Muñoz, and enters Bayamo. Leave Bayamo, taking road running north, and pass location of old tile factories of Valeriano and Parada. **224.0**
227.0
230.0

Paso Real de Santa Ana, where the Bayamo River is crossed; stream 100 feet wide, bottom hard. Pass a locality known as Caureje and the location of casa de Zambrana. Pass estancia de Auriola and a sitio called Aduana. **231.0**

Las Mangas, location of old ingenio. Here there is a small arroyo. Pass the following localities in order named: Chana, Figueredo, Las Delicias, the headwaters of Laguna de Alonso, Buena Vista, and Media Luna. **234.0**

Arroyo Punta Gorda and locality of same name. Cross Arroyo Manga de Palma and pass Atejito, Limón, Naranjo, Santa Clara, and Buena Esperanza, all fincas. **242.0**

Miles from
Baracoa.

- 247.0** Cauto El Embarcadero, where the Río Cauto is crossed by ferry. River not fordable, with steep approaches. Road now runs north through a low, flat, marsh country. Pass in order named San Cayetano, Laguna Maguabo, El Jardín, Arroyos Rancho, Pozo de Agua, Bejuco Viejo, fincas Vereda, Los Yamagueyes, Los Guayitos, and Arroyos Aguas Verdes, Corona, and Los Negros.
- 257.0** Cross Laguna de Tío Pablo and reach Río Salado, the most important affluent of the Cauto, crossing at place of same name. A small stream, fordable, but with steep approaches and muddy bottom. Water salty. Pass finca Corojito, Arroyo Corojito, Arroyo Obispo, Demajagual, Semana Santa, Ruta de Correo, and Las Corovaldas,
- 264.0** reaching Las Minas del Miquiabo (or Miguel). Pass Ojo de Agua and arroyo of same name, Luis Álvarez, José Illas, Campo Santo, fincas of Duranona, Palma, and Quintero, and Arroyo de la Palma. Pass fincas San Juan de los Remedios, Cirulos, Arroyos Jobo Dulce, La Piedra, Larga, Resignación, and Rincón. Pass arroyos
- 281.0** Biajacas and Ahoga Pollos and enter Victoria de las Tunas. Leave Tunas on a rough cart road going west. Pass finca Ranchuelo and arroyo of same name.
- 288.0** La Ceiba. Pass finca San Agustín de los Melones and cross Arroyo Cayojo, and pass finca Los Melones.
- 292.0** Ojo de Agua de los Melones.

ROAD No. 2.

MATA BAY—BARACOA.

General direction: NW. Distance: 11.5 miles.

IN GENERAL.

Starting from the last store on Mata beach where the Yumuri trail descends to the beach the trail leads around the bay and is sandy. From north side of bay to Baracoa is fairly good dirt trail in dry weather, but in wet weather in places it is very bad. Several very steep, rocky hills where rider is required to dismount. Trail, except at Mata Bay and at Boma Bay, has pinuela fence on both sides, and the land is cultivated on both sides with cocoanuts and bananas.

IN DETAIL.

Miles from Mata
Bay.

- 1.0** From the store on the south beach, follows the beach around to the west.
- 1.0** Follows the beach to the north. (Here a trail leads to the west to Güirito, Jamal, and Baracoa.)

Having crossed the mouth of the Mata River in a small hand ferry, and following the beach to the north-east, a small warehouse is reached and the trail turns sharply to the west. Miles from Mata Bay.
2.0

Passes over three very steep, rocky hills, partly ascends another high and commanding hill, and turns sharply to the north. (Straight trail to the west goes to Roble.) 3.0

Pass over three steep, rocky hills, descend a long, steep hill into Boma. At the end of this trail are located two hand ferries which cross Boma Bay. (From here a trail leads to the southwest along the Roble River to Roble.) 4.5

Cross Boma Bay, passing four houses and a store on the northwest side of the bay, ascend La Mesa de Majayara, a long rough hill to the northwest, and continue between two stores at the top; then turn to the north. (From here a trail leads to west to join another trail to Boca de Miel.) 5.2

Passes through a rolling country to the northwest along the right side of a long cliff ridge which extends nearly to Boca de Miel, turns to the west and descends a long, very rocky hill (third way down this hill a trail leads to the south to Roble), passes along the Boca de Miel for 300 yards and comes to a small hand ferry just beyond the last store. (Good ford here in dry season and at low tide, but is very wide; a ferry or small boat should be used in wet season.) 10.0

Having crossed the ferry, the trail passes over a small point of sand to Miel Bay, along this beach (soft sand) until the camino Real is reached, and into Baracoa, passing Fort Matachín on the right at the southeastern corner of the town. 11.5

ROAD No. 3.

BARAJAGUA LA VIEJA—MAYARÍ—SAGUA DE TÁNAMO.

General direction: E. Distance: 67.5 miles.

IN GENERAL.

1. Barajagua to Mayarí.—Good cart road from Arroyo Juan Vicente to Mayarí. Passable the entire distance in favorable season for carts, but crosses numerous arroyos with unimproved crossings, abrupt banks, and deep mud. Should not be calculated on for wheel transportation except under most urgent circumstances in

favorable season. Timber at hand for constructing corduroy bridges when needed.

2. Mayarí to Sagua de Tánamo.—Passable only to pack-train transportation and very difficult for that. One of the worst trails of the island. Trail should not be attempted with American horses except under circumstances permitting no alternative. Swampy country makes foot travel difficult also. Country traversed is for the most part heavily wooded, steep hills alternating with level marshy tracts. From Mayarí to the Río Téneme trail is broad most of the way, as if originally intended for cart road. Good water is found at frequent intervals in streams that cross trail. Good camp sites are very scarce.

IN DETAIL.

Miles from Barajagua.

- Leave Barajagua la Vieja (railroad name Cueto) going east through densely wooded country.
- 5.0 A cart road runs north; another south to Santiago road, joining same at Sojó. Road continues east. Reach Santa Isabel de Nipe, where there is a camp site.
- 6.5 Cross Nipe River. Road runs east along railroad.
- 9.3 Cross railroad, spur of which runs south into colonia Guaro. A road runs from this point to the north to Guaro and Embarcadero on the Nipe River, 2 miles distant.
- 9.6 Cross Guaro River. Road reaches Juan Vicente Creek, where the road branches, one branch crossing railroad to village of Juan Vicente. Pass a commanding hill to north of road 100 feet high; pass through open pasture land along south side of cemetery and enter Mayarí
- 16.5 Abajo. Leave Mayarí, crossing river at ford near north end of town and follow main cart road in eastern direction. At first fork in the road take southern branch and
- 18.0 continue in an eastern direction to Arroyo Ceiba, flowing northwest. Good water. Shortly after crossing encounter first hill of any consequence on the trail. Country on both sides thickly settled by tobacco farmers.
- 19.0 Reach locality called Calconcillo. To the north along coast are hills called Altos de Calconcillos, and to the south are hills called Altos de Qurenados.
- 21.5 Cross Cagimaya River; plenty of good water. Branch trail along west bank leads to north. Trail becomes difficult, full of roots, rocks, mud, and steep hills.
- 26.5 Cross stream called Arroyo Blanco. Locality by same name. Enter the Dumois estate, devoted to raising fruit.

Cross stream called Bayate. Locality called Santa Rita. Good cart road to north through Dumois estate.	Miles from Barajagua. 27.5
Cross small stream and enter swamp, which renders travel extremely slow.	28.5
Cross large stream called Río Lebisa, apparently good water; then enter swamp cut up with small streams. Trail exceedingly difficult.	29.5
Reach locality called Purio. Trail is here less than 1 mile from the coast line of Lebisa Bay. Trail continues very bad, with mud, hills, and stones.	33.5
Cross small stream; apparently good water.	34.5
Place called Dos Caminos. Small stream with good water.	35.5
Place called Cabonico. Few shacks along trail. Cross Río Cabonico here. Good camp site, sufficient for a brigade, with grass, wood, and water convenient; 0.5 mile distant from Lebisa Bay. Trail at this point extremely bad.	37.5
Reach place called El Quemado. Camp site for one battalion, with wood, water, and grass convenient except in dry weather, when water may not be had.	40.5
Reach Río Téneme; cross same three times in next mile; after third crossing coast trail turns to north, while broader trail continues northeast, leading through Plátano, El Cuartel, and Bazán.	42.0
Following coast trail, cross small stream running north-west.	42.5
Reach Barredera, name of locality; large sugar fields on left of trail. Abandoned sawmill at east corner of cane field on west extremity of Tánamo Bay. Trail turns to the south at this point and enters swampy country.	45.5
Reach clearings of the Simón Fruit Company.	47.5
Cross Río Grande, formed by Arroyo Marta and Arroyo Colorado. Good camp site for one regiment; good water; wood and grass convenient. Trail better from this point on.	54.5
Reach Cayo Mambí on south shore of Tánamo Bay. Headquarters of the Simón Fruit Company. Hilly, but by scattering the command camp site for a regiment could be found.	58.5
Reach locality and group of houses called Guaygenal on the main cart road from Esterón to Sagua de Tánamo.	62.5
Turn south on cart road and reach Sagua de Tánamo.	67.5

ROAD No. 4.**HOLGUÍN—SAN ANDRÉS—SAN MANUEL—PUERTO PADRE—MANATÍ.**

General direction: NW. Distance: 57 miles.

IN GENERAL.

1. Holguín to Puerto Padre.—A fairly good dirt road in dry season. Practicable for light-loaded wagons.

2. Puerto Padre to Manatí.—A fair dirt road in the dry season. Practicable for light-loaded wagons in the dry season. Would be impassable for wheeled transportation in wet weather. After crossing the Parades River there are no habitations and no water until Manatí is reached. Country is low, flat, and swampy, with alternate woods and openings.

IN DETAIL.Miles from Hol-
guín.

- 0.5** Leave the town from the northwest corner and follow
- 1.5** telegraph line. The road gradually rises and passes through an opening in the bare, grassy hills that lie to the north of the town. (Right-hand road from this point goes to Holguín and Santiago gold mine.)
- 2.2** Road gradually descends. (A road from this point
- 2.5** goes west to Damián.) Crosses a small stream, and after crossing gradually rises and continues northwest through an open and rolling country with little cultivation and few habitations. Runs along wire fence of pasture on
- 4.5** the right. Descends and crosses a small stream, after which road rises and continues over hills.
- 5.5** Road becomes practically level and better; bare hills to left, Montes de Matamoros, from 0.5 to 0.7 mile distant.
- 6.7** Road gradually rises to 7.3 miles, at which point it enters a wire-fenced lane, gradually descends, and passes through Purnio. (A road from this point goes to Las Cruces.) Continuing in a general northwest direction the road becomes level and the country more wooded and cultivated.
- 9.5** A country road crosses at right angles the road here described.
- 10.8** Passes San Miguel. At 11.2 miles a trail leads off to the right at right angles.
- 11.6** Passes a good well at right of road. At 12.5 miles a trail leads off to the right front, and at 12.8 miles a country road leads off to the right at right angles to the road here described.

Passes bodega de la Vega. Road continues through wire-fenced lane in same general northwest direction and enters town of San Andrés from the east. Ruins of old ingenio of same name. Leaves San Andrés from the northwest corner of the town and runs slightly west of north.	Miles from Holguín. 13.0 14.4
Road ascends to top of rocky hill and turns north. (The telegraph line follows a road which branches off to the left at this point; this road also goes to Puerto Padre by a more westerly and indirect route.)	15.0
Continuing, the road ascends a steep and rocky hill and crosses a small stream, and after crossing rises to the top of a steep, rocky hill. (Road very rough.)	15.6 16.1
At this point a road leading to a ranch house branches off to the right. Road continues over several rough and rocky hills, descends, and crosses a small stream. At this point the road enters a wire-fenced lane and becomes level; the country becomes more populated and cultivated.	16.5 17.3
Passes La Entrada, and at 18.2 miles a country road branches off to the right at right angles to the road described.	17.8
Country road branches off to the left at this point.	19.1
Road continues through wire-fenced lane and enters Los Alfonsos. (Straight road through Los Alfonsos goes to Chaparra.) Road described turns sharply to the left and leaves Los Alfonsos from the west, running slightly north of west.	19.4
Crosses, by ford, the Vedado River (Rio Chaparra), a good-sized stream; west approach very steep and continuing passes through La Vega de Vedado. (At this point a road leads off north, going to Chaparra.)	21.3 22.0
Passes through Vedado. (From Vedado a road leads north to Chaparra and one south to San Agustín.) Leaving Vedado the road crosses a small stream (approaches on either side very steep) at the west edge of the town.	22.3
At this point the road turns to the right and runs slightly west of north.	23.2
Country road branches off to the left at this point.	23.9
Passes El Sao de San Pedro.	25.4
Passes San Pedro de Maniabón. At 26.9 miles a country road leads off to the right, and at 28.3 miles another road branching off to the right goes to Santa Cruz.	26.6
Cross the Santa María River (a good-sized stream) by a wooden bridge 25 feet high by 60 feet long, and enter the town of Santa María. Leaving Santa María from	28.8 28.9

Miles from Hol-
guín.

- the north, the road continues and turns to the right at 29.3 miles (at this point a left branch of the road leads straight on, and also goes to Puerto Padre but does not touch San Manuel).
- 29.6** The road crosses a small stream and continues through
- 33.0** the cane fields of the San Manuel estate to the ingenio San Manuel. Leaving San Manuel the road runs north, following the San Manuel Railroad, and is perfectly level.
- 36.0** Crossing a small stream, Río Yarey, the road rises over
- 36.7** a ridge, descends and enters the town of Puerto Padre from the south. (From Vedado to Santa María the country is more or less wooded and rolling and there are numerous short grades over low hills. From Santa María to Puerto Padre the country is open and level, the road passing through the cane fields of the San Manuel estate.) Leave the town from the northwest on the road running
- 37.0** near the beach. Pass cemetery and turn to left. Continuing in a general northwest direction the road crosses a bad bog.
- 38.0** Crosses the Parades River, a small, fordable stream,
- 38.5** and continues through a dense jungle. Crosses a ravine and at this point a road leading to a pasture turns to the left (several country roads lead off to the left near this point).
- 39.6** At this point the road emerges from the woods and strikes an open playa, which is covered with water in rainy weather.
- 41.7** Continuing in the same general direction the road runs along this level and sandy playa and strikes an arm of
- 43.4** the sea and runs along the shore. At this point the road leaves the sea and enters the woods, the country becoming alternately open and wooded.
- 45.7** A road branching off to the left at this point also goes to Manatí by way of Pozoprieto, La Caridad, La Delicia, and Guanito. (This is a longer route than the one described.) The road again touches an arm of the sea which remains in view for a short distance.
- 49.2** At this point a trail branches off to the left and goes to Santa Teresa and Guanito. The road remaining unchanged, continues through the same kind of country and in the same general direction; a trail branching off to the left goes by way of San Miguel to Manatí.
- 56.9** At this point the road enters the Las Tunas-Manatí
- 57.0** road, and continuing enters the town of Manatí from the southeast.

ROAD No. 5.

HOLGUÍN—SAN LORENZO—LAS PARRAS—VICTORIA DE LAS TUNAS.

General direction: SW. Distance: 50 miles.

IN GENERAL.

A fairly good dirt road in the dry season, but rough in places. Practicable for light-loaded wagons. Wheeled transportation should continue on the road to 16.7 miles, take road to left, and rejoin the road at 17.5 miles. (This to avoid a steep, rocky hill 0.7 mile east of Caridad.) Again, at 18.5 miles, take road to left (through a field) and come back into main road about 500 yards farther on. (This to avoid a bad bog which would be impassable in wet weather.) Again, at 19.5 miles, take road to right (through a field) and rejoin the road at 21 miles. (This, also, to avoid a bad bog which would be impassable in wet weather.)

IN DETAIL.

Leave the town from the west on the road running west to new cemetery. Passes to the left of the cemetery.	Miles from Holguín.
Crosses a small stream; the road continues over the hills to the west of Holguín and gradually descends.	1.0
Crosses the Matamoros Creek, a clear stream of water, easily fordable. Continues over a generally open and rolling country, with few habitations and little cultivation. Montes de Matamoros to the north.	3.0
Passes a small stream (fordable) called the Yareyal River, and enters the town of Yareyal.	5.0
Leaving Yareyal, the road continues west through a wooded country, with hills to the west; few habitations and little cultivation.	5.5
Passing Cabezuelas and crossing the Cabezuelas Creek (a small fordable stream), the road runs through a rough, rugged country, hills to both right and left, and mostly wooded, with scattering habitations and little cultivation.	11.0
Passing Caridad, a very rocky hill is encountered a few hundred yards to the west. This hill is a very small hill, merely a bump in the road, but it is a bad place and an accident to wagons would be very possible here. To the south is Cerro Almigui.	18.0
The road continues west through San Lorenzo, and a few hundred yards farther on crosses Río de la Rioja, a small, fordable stream of salty water, unfit for drinking purposes for either men or animals. Just after passing	24.0

Miles from Holguín.

- this stream the road crosses the road from Puerto Padre to Caño. (Between the Cabezuelas Creek and San Lorenzo three small, fordable streams are crossed—i. e., Arroyos Cojatal, Janatas, and Calabaza.) The road continues west, the country being flat, with dense jungle on both sides.
- 28.0** Crosses two small streams (one of them three times) in the vicinity of Buenaventura.
- 29.5** Descends a rocky hill, Loma la Bartola, and passes a small stream at its foot. To the north is Loma Ajenjibro. The country becomes rough and rugged and the jungle continues. The road gradually ascends, and passing around the right of a densely wooded hill, reaches its highest point at 30.5 miles. (Between the Rioja River and this point are a number of bogs which would be serious in wet weather.)
- 30.5** The road now becomes level and passes along the north fence of a large cattle pasture (the jungle continues on the right and a range of hills lies to the south of the cattle
- 34.0** pasture) until Las Parras is reached. (The road from Holguín, via San Andrés, and San Agustín, here joins the road described.) Leaving Las Parras the road turns slightly north of west through a generally level country of meadow lands with scattering woods.
- 35.5** Passes through Majibacoa and crosses Río Majibacoa and Arroyo Asiento, fordable streams, between Majibacoa and Guillén (branches of Río Naranjo).
- 39.0** From Guillén it turns slightly southwest.
- 44.2** Crosses the Cuba Company Railroad at Las Palmillas, the country becoming a rolling plain of meadow and woods with little cultivation and few habitations, but numerous grazing pastures. Crosses Las Palmillas Creek, a small, fordable stream, but with very steep banks.
- 45.0** Crosses El Rincón Creek, also a small, fordable stream, but with steep banks, and turns slightly north of west.
- 50.0** Victoria de las Tunas; enters the town from the south. From Las Parras to Las Tunas the road is very good, there being no bad places except at the crossings of Las Palmillas and Rincón creeks. (A telegraph line follows the road to 7 miles, disappears by way of San Andrés, again joins the road here described at 37.5 miles, and follows it to Bayamo.)

ROAD No. 6.
GIBARA—CONTIMPLORA—AURAS—HOLGUÍN—BAYAMO.

General direction: S. Distance: 80 miles.

IN GENERAL.

A fairly good dirt road in the dry season, but very rough and rocky in places. Practicable for bull carts and light-loaded wagons. The Cauto crossing is difficult on account of steep approaches.

IN DETAIL.

Leave Gibara from the south; pass the depot and a stone blockhouse on right.	Miles from Gibara. 0.7
Passes under Gibara and Holguín Railroad and continues around the left of a hill, the road gradually rising. Turn to right and cross railroad over stone bridge. The road becomes nearly level and follows the left bank of the Cacuyugüin River, and along the foot of a ridge of hills, Cerro de Candelaria, which lie to the right.	0.8 1.4
At this point the road turns to the left, and to the right at 1.6 miles, continuing along the foot of the ridge and running in a general southwesterly direction, crossing over a number of short, rocky hills.	
Crosses a short but very bad, rocky hill.	2.0
Passes El Embarcadero, which is situated on the Cacuyugüin River. (At the north end of the town 75 yards to the right of the road is a stone blockhouse, and at the south end of town 150 yards to the right of road is another, both in good repair except the roofs.)	3.3
Cross Cacuyugüin River by ford.	4.1
At this point the road begins the ascent of a long and steep, rocky hill. (At the top of this hill just to the right of the road is a stone blockhouse; walls in good repair.) Road descends.	4.7 5.0
Passes Arroyo Blanco. (Ruins of an old blockhouse 100 yards to the left of road.) At this place a road branches off to the left from the road described.	6.2
Passes a cemetery on the left.	6.8
At this point a trail branches off to the right, and a road branches off to the right 300 yards farther on.	7.0
Passes Contimplora. (From here a road leads off to the right to Velasco, and one leads off to the left to the Contimplora Railroad station.)	7.4
Road ascends a very rocky and bad hill.	7.5

Miles from
Gibara.

- Crosses a small, muddy stream, Río Cacuyugüin,
- 8.4** ascends and passes a stone blockhouse 75 yards to the right of the road. (At this point a road comes into the road here described from the left rear.)
- 8.6** Passes a stone blockhouse (walls in good repair) 100 yards to the right of road. Passes Iberia.
- 8.7** A road branches off to the right, and the road described crosses the Velasco branch of the Gibara and Holguín Railroad. A trail branches off to the left at 8.8 miles, and at 9.8 miles a road branches off to the right from the road here described.
- 10.0** Continuing, the road enters Auras from the north. Leaving Auras from the south, the road crosses the railroad and then a small muddy stream at 10.5 miles. Then ascends along hill for 0.5 mile. Roads branch off to the left from the road here described at 11.3 miles and 11.7 miles.
- 12.0** At this point the road begins the descent of a long, steep, and rocky hill.
- 12.7** A road branches off to the right, and the road described ascends a very steep hill. Continuing, the road passes over a number of short, rocky hills, and at 14.5 miles crosses a small rocky stream.
- 14.7** The road crosses the railroad and a road enters the road described from the right rear.
- 15.5** Crosses a small stream.
- 16.5** Passes Aguas Claras. (Road branches off to the right.) Continuing in the same general direction, the road remains unchanged and crosses the railroad at 17.2 miles, at 18.5 miles, and at 20.3 miles. After crossing the railroad at this last point the road crosses a stone bridge over a small stream, and 150 yards farther on crosses another stone
- 21.3** bridge over another small stream, and enters Holguín from the northwest. The country is practically the same all the way from Gibara to Holguín, being very rough and rugged, and more or less wooded. Wire fences lie on either side of the road practically all the way from Arroyo Blanco to Aguas Claras. Leave Holguín near Cuba Company Railroad depot. From Holguín to Cacocúm the road is good. Holguín Creek is small and fordable. A telegraph line follows the road from Holguín to Bayamo.
- 22.8** Cross Holguín Creek again. Follow along west bank of a creek.
- 27.3** Cross creek by a ford. Cross Cuba Company Railroad
- 41.0** at Cacocúm.

Country becomes more open; rather swampy and bad in rainy season. Miles from Gibara.
44.0

Cross Cauto River. Ford good, water not deep, and bottom firm and hard. The approaches are, however, very steep. The road runs south. 52.0

Cross Cautillo River, stream 30 yards wide. Ford knee deep and firm bottom. From this river to Bayamo the road is good, but there is no water to be found except in wells located at farmhouses. Very little cultivation and few inhabitants. Country open and level. 61.0

Bayamo. 80.0

ROAD No. 7.

GUANTÁNAMO—GUASO—SAGUA DE TÁNAMO.

General direction: N. Distance: 48 miles.

IN GENERAL.

1. Guantánamo to Guaso.—Unimproved earth road, suitable during portion of the year for wagon transportation. Becomes impassable for wheel transportation in wet season. Country traversed is level, with cane fields and open pastures throughout. Most of the culverts in bad state of repair.

2. Guaso to Sagua de Tánamo.—Cart road from Guantánamo to point 2 miles north of Guaso. From Guaso road enters foothills and becomes a mere trail, hilly and stony, but fairly good until after crossing summit of first range of mountains, after which it becomes almost impassable even in dry season. The telegraph line from Guantánamo to Sagua de Tánamo follows this trail and is at most times within sight of it, rendering it an easy matter to follow the trail without a guide. This trail presents all features that go to make travel difficult and dangerous. Deep mud, even in most favorable season, under which are the tangled roots of trees. At one time around slippery stones; at another sharp, cutting stones; combined with steep ascents and descents and precipices. Some of these features all the time, and all of them some of the time, render the trail next to impracticable. The Sagua River and its tributaries are crossed 31 times in a distance of 12 miles. After rains this river is swift and dangerous. The Catalina and Sagua valley, about 12 miles long, varies in width from about 300 yards to 0.5 mile, the hills rising abruptly on both sides to a height of 600 to 800 feet at the south end, gradually becoming lower and disappearing at Sagua de Tánamo.

IN DETAIL.

Miles from
Guantánamo.

- Leaving Guantánamo from north side through open pasture land, with Guantánamo Railroad about 200 yards east, cross Bano River on steel bridge. River about 30 yards between banks. Fordable at any point during dry season to infantry and cavalry. Abundant supply of good water.
- 0.5
- 2.0 Cross Cuba Eastern Railway and cross Guantánamo
- 2.2 Railroad near Cuatro Caminos, keeping latter to the east and follow on west side of a branch of the Cuba Eastern
- 5.0 Railway to Esperanza sugar mill, keeping same to east, continue in a generally northern direction near west bank
- 7.0 of Guaso River to Guaso, in foothills of mountains that bound Guantánamo valley on north.
- 16.0 Travel becomes slow due to sharp slippery stones in trail. Pass old stone fort 20 by 20 by 4 feet on right of trail and about 20 yards distant. Trail ascends hill, which is bare except for grass, and rises gradually for a distance of about 0.5 mile.
- 17.0 Cultivated fields, palm trees, and few shacks on west.
- 19.0 Ruins of coffee plantation 50 yards to left. Another 300 yards to right. Top of first range of mountains. Ruins of old blockhouse near trail. Point overlooks entire Guantánamo valley.
- 19.5 Ruins of coffee plantation on right. Trail becomes rapidly worse; necessary to lead animals on account of slippery stones.
- 21.0 Reach Brijinia.
- 23.0 Reach Guayabal. Stream to right of and near trail; good water. Next mile is mostly swamp.
- 24.0 Cross small stream of good water, on south side of which one battalion could camp; the locality is not good for camp of any duration.
- 26.0 Río de Cañas (tributary of Catalina River), running in a northeastern direction. Trail to left upstream; another to right downstream and crossing same. Take latter trail and reach Yamagua.
- 29.0 Santa Catalina, name of locality which extends several miles along the Catalina River. River contains good water, and the trail is never far distant from the stream from Yamagua to Sagua de Tánamo. Trail
- 31.0 crosses and recrosses the stream and crosses on west side of Catalina River, a tributary running east containing good water. Ascend a hill, from the top of which good

view of the country may be had, showing extremely rough country cut up by numerous cañons with perpendicular cliffs, the hills to the north being lower than those to the south. Miles from
Guantánamo.

Cañon presents same general features, but bluffs do not exceed 300 to 500 feet in height. 33.0

Reach Provencia. 38.0

Reach Dolorita. 40.0

Reach La Catalina de Boca. Here the Sagua River, coming from the southwest, joins the Catalina River from the south, and from here on it is called the Sagua River. Evidences of cart road begin here, but the road is so difficult as to permit only very light loads to be placed on the carts. 42.0

Reach San Miguel, which includes all territory in the neighborhood of the junction of the San Miguel and Sagua rivers, the San Miguel River emptying into the Sagua River on the west side 1 mile south of Sagua de Tánamo. 46.0

Reach Sagua de Tánamo. 48.0

ROAD No. 8.

VICTORIA DE LAS TUNAS—SAN AGUSTÍN—SAN ANDRÉS—LOS ALFONSOS—CHAPARRA.

General direction: NE. Distance: 59.8 miles.

IN GENERAL.

A fairly good dirt road in dry season, but rough in places. Practicable for light loaded wagons.

IN DETAIL.

Leave the town from the south and follow the Las Tunas-Holguín road to Majibacoa, following the telegraph line all the way from Las Tunas to San Andrés. The road leaves Majibacoa through a wooded country, runs in a general northeasterly direction, and is comparatively good. Miles from Las
Tunas. 14.5

Road continues along a wire fence on the left; leaves wire fence at 16.6 miles and continues through woods, becoming better. 16.1

The road enters a lane (rail fence), becoming slightly rougher and boggy in places. 17.6

Miles from Las
Tunas.

- Passes Tamarindo, enters a wire-fenced lane and continues very good through a slightly rolling country.
- 20.3
- 22.9 Passes Asiento de Majibacoa.
- 23.0 Road crosses a small fordable stream (very boggy on both banks); the country continues rolling and becomes more populated, the road continuing through a lane and being very good.
- 23.8 The road gradually descends and becomes slightly rougher; enters woods and becomes better at 24.9 miles.
- 25.4 Here the road becomes very boggy in places.
- 26.1 At this point a road branches off to the left from the road here described, which continues on through woods, becoming very boggy.
- 27.9 The road gradually rises and becomes much better,
- 28.3 and continuing it enters San Agustín from the southwest. Leaving San Agustín going east the road enters the woods and continues fairly good.
- 29.2 A trail branches off to the right at right angles, and at 30 miles a road leads off to the right at right angles to the road here described, which continues fairly good, in an easterly direction, along a rail fence to right and woods to left.
- 30.2 The road gradually rises, and a road running north and south crosses the road here described, which continues and enters a lane at 31.4 miles.
- 32.1 Passes La Ceiba and continues through lane.
- 32.5 Leaves lane and gradually rises, continuing good. A road leads off to the right at right angles, the road described gradually descending through an open country. Road enters lane, becoming slightly rougher. Crosses a small boggy stream, and continues through lane; country rolling. Again crosses same stream (approaches very rough), and continues through lane. Pass Aguarás. At this point a road leading off to the left goes to Puerto Padre. Road described continues and crosses the Aguarás River (fairly steep and rough banks).
- 35.8 A road leads off to the left to Chaparra, the country becoming very hilly and rocky. Road continues over a rocky hill, descends and crosses a small stream with rocky banks, then gradually rises and passes stonewall to the left.
- 36.8 Leaves stonewall and continues along wire fence to the right, the road being fairly level.
- 37.6 Road descends a rather steep, rocky hill, and then gradually rises.

Crosses a small stream called the San José River, with gradually sloping and rocky approaches.	Miles from Las Tunas.
	37.8
The road leaves wire fence, and a road branches off to the right, going to La Jíquima. Road ascends a fairly steep, rocky hill, a rock wall lying to the right.	39.1
Crosses a small stream with steep, rocky banks; leaves rock wall and continues along a wire fence.	39.6
The road gradually descends a rocky hill (the country becoming more populated and cultivated), and entering a wire-fenced lane, becomes very good.	39.8
Crosses a small stream with rocky bed (Arroyo Florida), and 200 yards farther on again crosses same stream.	40.6
Passes Martillo. A road branches off to the right at right angles, and the road described becomes boggy in places.	41.5
A country road branches off to the right, and the road described crosses the Chaparra River (or Río Amasabo). (Approaches gradually sloping and boggy.) The road continues on through lane, being very good, and enters San Andrés from the southwest. Leave the town from the northwest corner and follow Holguín-Puerto Padre road to Los Alfonsos. Leave Los Alfonsos from the north, the road running in a general northwest direction to Baderia.	43.0
A trail branches off to the left, and passing a small stream to the right, the road becomes rough.	51.2
Road becomes better and continuing through lane crosses the Chaparra River. (Moderately steep banks.)	51.6
The road leaves wire fence, the country being moderately cultivated and populated.	52.4
Again strikes wire fence to left and later a trail leads off to the right at right angles to the road here described. Road continues through lane, and at 53 miles a country road branches off to the left.	52.6
Passes through Elamo and continues through lane, being fairly good. Passes through Miguel Partido. At this point a country road branches off to the left, and the road described gradually descends and becomes rougher and boggy in places, the country becoming thickly wooded.	53.4
	53.9
Passes through La Suela, at which point a road leads off to the left going to Puerto Padre. Road turns to right and continues through woods.	55.4
Road again crosses the Chaparra River, enters a wire-fenced lane, and continues good.	56.3

Miles from Las
Tunas.

- Passes through Miguel Ramón, where a road leads off to the right to San Juan. The road described continues through cane fields and becomes very boggy in places.
- 57.1
- 57.7 Another road crosses the road described at this point, and at 58.2 miles a trail leads off to the left through the woods.
- 58.6 A road branching off to the right goes to San Juan, the road described continuing rough and boggy through a wooded country.
- 59.1 Road leaves the woods, turns to the left, and, striking the cane fields of Chaparra, continues through wire-fenced lane, and becomes slightly rough and boggy.
- 59.7 Passes through El Tejar, where a country road branches off to the right.
- 59.8 Continuing through cane fields, the road becomes fairly good; crosses Chaparra Railroad and enters Chaparra from the south.

ROAD No. 9.

SANTIAGO DE CUBA—SAN LUIS—PALMARITO—SOCARRENA—
MAYARÍ ABAJO.

General direction: NE. Distance: 71.5 miles.

IN GENERAL.

1. Santiago to San Luis.—A macadam road throughout. Average width about 15 yards; in excellent repair, except that two streams lack bridges. Bridges now (1907) under construction. The first one-third of the distance passes through rolling country, open pasture land, and sparse brush. The middle third carries the road over the Sierra Maestra mountain range and the last third is again in rolling country. All arms could operate over the first and last thirds of the distance, but cavalry and artillery would be confined to the road in the middle third. Good water is found at frequent intervals along the road. The summit of the Sierra Maestra range commands all country to the south and affords a splendid view of the entire Santiago valley.

2. San Luis to Cauto River.—An unimproved earth road suitable for carts and lightly loaded wagons.

3. Cauto River to Platanillos.—A trail.

4. Platanillos to Mayarí Abajo.—A cart road. From Cauto River to north the trail is for the most part of the distance sufficiently wide for wheel transportation, but only in a few places and for very short distances could wheel transportation be used. The soil is such

that it would be full of mud holes for months after the dry season began. The banks of the streams are steep and high. The trail passes over several hills between 4 and 12 miles from Mayarí, the grades of which would render heavy loads impracticable, even if the roadbeds were in good condition. There is plenty of good water at frequent intervals from Santiago to Palmarito, but from this point north streams with good water become scarcer. This trail follows the valley of the Nipe River, keeping the mountainous country south of Mayarí to the east until it has passed the northern limits of the range. Telegraph line from Santiago to Mayarí follows the trail from Palmarito, making it an easy matter to keep the road without a guide. From Palmarito north to the Nipe Bay Company property there is practically no cultivation and very few inhabitants. Country wooded except for occasional savanna between the Cauto and Bio rivers.

IN DETAIL.

Leave Santiago from north side of town at the Miles from Santi-
ago. foot of Santo Tomás street, crossing the Trocha; group of houses on slight elevation to the right of the road; also a few houses on left; road ascends slight grade about 100 yards and then starts downhill.

Cross stone culvert over Yarayó Creek; branch of **0.6** road leaves to the northeast.

Cross Cuba Company Railroad. **1.0**

Cross Cuba Company Railroad to east side. **1.9**

Cross Arroyo Purgatorio on stone bridge. **2.0**

Cross railroad to west side. **2.2**

Cross railroad to east side, passing to east of railroad **2.7** station Cuabitas.

Old Santiago waterworks immediately to right of **3.5** road.

Boniato, where the Santiago-Cristo road branches off **3.7** to the northeast. Cross railroad to west side and immediately after cross bridge of masonry 110 feet long over small stream.

Cross stone bridge. Dam in stream on west of road. **4.8**

Small reservoir of good water. Stream called Arroyo Boniato. Cross small bridge of masonry.

Begin ascent of winding road up mountain side, about **5.0** 7 per cent grade. Wall of masonry on south side of road, high hill on north side.

Pass fountain of running water, with water trough on **5.2** south side of road.

Miles from Santi-
ago.

- Road makes sharp angle to east, continuing up steep
5.6 incline.
6.5 Top of ridge, highest point on road. Troops in this position would be impregnable against advance from south. Field artillery from this altitude could fire about, if not quite, into the city of Santiago. Position not so easily defended against troops coming from the north.
6.9 Road winding and twisting going down hill in a generally northeastern direction. Hill to east of road.
8.5 Cross small steel bridge over small stream.
8.6 Cross another small steel bridge over same stream. Region still hilly.
9.2 Cross same stream where bridge has been washed out, making bad ascent on north bank.
10.5 Earth road crosses pike east and west.
10.6 High ground on east.
10.7 Stone culvert over dry run.
10.9 Stone and steel bridge, one span of steel, over small creek.
11.2 Stone bridge over creek. Hill to the west, ravine to the east.
12.2 Stone culvert over small creek.
12.4 Branch road runs to the east.
13.1 Branch road leaves to west. High ground to west; low ground to east. High brush and grass.
13.6 Reach south edge of Dos Caminos. Road forms one of the streets of the village, 0.5 mile from one side to the other of village. Road ascends gentle slope going into village; descends in leaving village.
13.9 Culvert.
14.0 Cross camino Guaninicúm running northeast and southwest and then pass under Cuba Company Railroad. Road then turns west, paralleling Cuba Company Railroad into San Luis.
16.0 Cross bridge over Arroyo San Rafael (or Ulloa River). Cane land on north of road; grass to south.
16.2 Cross road leading to ingenio Unión on the north.
16.6 Cross Arroyo Naranjo, where new bridge is being built; concrete abutments, steel span; length about 150 feet. At present road descends steep banks on each side of river to small wooden bridge; difficult to cross stream with heavy loads.
17.0 Cross railroad spur running to ingenio Unión.

Arrive at Entronque de San Luis and join camino Real de Enramadas.	Miles from Santiago. 18.1
San Luis. Leave San Luis north side in a northern direction.	18.7
Cross Cuba Company Railroad to east side; follow general direction of railroad.	20.7
Road forks, one branch going west across railroad, the other keeping to the east side of railroad; take latter.	22.5
Road forks, one branch going to east of north, the other going northwest; take latter road.	23.5
Join road coming from east across railroad; keep to east of railroad.	24.0
Reach Auza on the Cuba Company Railroad; cross railroad to Santa Ana sugar mill and leave sugar mill in a northwest direction, keeping to the west of the Guaninicúm River.	25.0
Ford across Guaninicúm River to the east side, two other branches turning to west; take north branch of the latter to Santa María. Turn north and cross Cauto River to west bank; follow west bank north and cross Cauto River to north bank near Palmarito. After crossing river turn northwest and cross Boca de Aura River and Río Colorado.	27.0
Cross Río Jagua and 200 yards after cross Cuba Company Railroad near Jagua River. Continue in a northern direction.	29.0
Enter open grass plot 0.2 mile in diameter; trails branch to the east and west from this plot, main trail continuing to the north. Pass Sabana de Miranda.	30.5
Cross Río Bayate, and pass Loma de Maimie.	32.5
Cross small stream running west; good water in small quantities.	33.0
Cross stream called Bariguá at place called Cayo del Rey.	35.5
Cross Río Bio, a small stream of good water. Large, open grass plot on south side of stream sufficiently large to accommodate a brigade.	36.0
Cross stream of good water; camp site for one company on south bank. Locality called La Sierra.	36.5
Reach locality called Socarrena.	37.5
Cross Nipe River; plenty of good water; locality called Sabanilla. New one-story frame building, about 40 by 20 feet, corrugated iron roof, situated on south bank of river. Open ground on south bank, sufficient space to	43.0
	45.0
	46.5
	49.0

Miles from Santi-
ago.

- camp one regiment. Ground low and apt to be flooded in rainy season.
- 51.5** Locality called Birán (also spelled Virán). Cross small stream here; good water. Open country; slight growth of brush; sufficient space for one regiment to camp on west side; clear, open grass plot on east side large enough for a battalion.
- 52.5** Cross small stream called Colorado; a group of shacks by same name. Water not good.
- 55.5** Reach locality called Sojo; cross stream of same name with plenty of good water. Good camp site here for a regiment. Village of 20 or 30 shacks.
- 58.0** Reach locality called Buena Ventura; stream of same name; plenty of good water.
- 59.0** Reach locality called Baitiquirí; cross small stream of same name; water not good.
- 60.5** Reach locality called Juliana; trail north from this place to Santa Isabel.
- 64.5** Reach locality called Guaro Arriba.
- 65.0** Cross stream called Guaro River; plenty of good water. Cane fields on north, and cleared ground south of road. Pass Platanillos.
- 67.5** Cross small stream called Juan Vicente, with plenty of good water.
- 70.0** Reach place called Cocal.
- 71.5** Enter Mayarí at south end of town.

ROAD No. 10.

SANTA ANA—CABEZA—PALMA SORIANO—LA CUCHILLA—CANEY—
CARIDAD DE GUANINAO—LA GÜIRA—BIJAGUAL—BAIRE.

General direction: W. Distance: 45.7 miles.

IN GENERAL.

1. Santa Ana to Palmo Soriano.—Part wagon road and part cart road. At places only a trail. Camp site for regiment along Cauto River.
2. Palma Soriano to Caney.—A fair dirt road. A better way is via Cerqueta.
3. Caney to Bijagual.—A dirt road. In dry season suitable for wagons; in rainy season for pack animals.
4. Bijagual to Baire.—A trail with 2 miles of wagon road.

IN DETAIL.

Road leaves Santa Ana on west side; goes little south of west through cane fields. Miles from Santa Ana.

Crosses main road; goes general direction of west, turning north through forests and crossing Río Grande, trail branches, main trail going northeast to Caridad de Troncones and Palmarita, trail to Cabeza going southwest to Cabeza, then west for 1 mile; here trail goes through gate to Maibu, main trail turning south and cross stream, where trail branches to the southeast to Paraíso on San Luis-Palma Soriano road. Trail to Palma Soriano goes southwest until it strikes the banks of the Cauto River; it then goes a little west of south to Palma Soriano. Leave Palma Soriano, going west. For 1.7 miles this road is the same as the Palma Soriano-Baire road.

Leave the main road and turn south through uncultivated country.

Cross small stream flowing east, approaches steep and muddy. After crossing stream turn west through pasture with scattered palm trees, leaving stream to the right (north).

Road turns south. 17.5

Road turns west. Trail south through Condongo to Caney. 17.7

Road turns southwest and continues in this direction to Caney. 18.5

House west of road. Trail east through Condongo to the Palma Soriano-Caney road, 0.5 mile west of Cerqueta. 19.2

Two houses west of road and one east. Road east to Palma Soriano via Cerqueta. 20.0

Caney. Road goes west and turns southwest. 21.0

Road forks, right going to Aguacate via Santa Rosa and Monte Oscuro. Main road turns south along north and west bank Caney River. 22.0

Road turns west and continues in this direction along the river, crossing frequently. Country well settled along road, houses every few hundred yards. 22.2

Through Algodonal. 24.0

Through woods; very muddy in wet weather. 25.0

Through Ramón de Guaninao. 26.0

Store south of road. Twenty yards west of this house trail goes south to Dos Palmas. 27.0

Store south of road. Twenty yards west of this house, between house and stream, trail goes south to 27.4

- Miles from Santa Ana. Santa María, on the road from Dos Palmas to Baños
- 27.8 Calientes.
 - 28.5 Trail north to Aguacate.
 - 29.3 Pass through Ceiba.
Trail north to Aguacate via Ojo de Agua. Trail passes through gate 25 yards west of canteen on north side of road.
 - 30.7 Caridad de Guaninao on Lajas River; 100 yards east of river a well traveled timber trail goes south into the hills; 100 yards west of river the road forks, the right going north to Guaninao and Lajas, the main road continuing southwest to La Güira. There is a large amount of cedar and mahogany timber (cut) along the road in the vicinity of this point.
 - 31.5 Road forks; the left is a timber trail; the main road keeps to the right. This is a new road through woods and is rough and very muddy.
 - 33.0 Enter La Güira pasture; road good, over well-drained grass land. Road continues through this pasture to the
 - 34.0 manager's house, passing through the yard south of the house.
 - 34.5 Excellent camp site for large body of troops.
 - 34.7 Cross Contramaestra River at stony ford; water about 2 feet deep; approaches good.
 - 35.5 Pass through gate and enter La Lima, cultivated land with a few houses. Contramaestre River parallel to road 0.5 mile north, flowing west.
 - 36.0 Cross Manacas River at its junction with the Contramaestra; approaches very steep and rough, and road almost impassable. Store west of river. At this store,
 - 37.0 road from Manacas joins this road and both go north to Bijagual. Leave Bijagual and take trail northwest.
 - 37.2 A trail southwest to Guinea.
 - 37.3 A trail northeast to Guaninao.
 - 38.0 Cross Mogote River, flowing north; rocky ford; water 2 feet deep and swift.
 - 39.0 Paso Seco. Trail joins with another going northeast to Maffo.
 - 39.5 Trail southwest to Negros. A trail northeast to Mabio Arriba.
 - 39.7 Biajacas. Enter woods.
 - 43.0 Leave woods.
 - 45.7 Baire.

ROAD No. 11.

CAUTO ABAJO—SANTIAGO RECTOR—PASO VIEJO—HONDO. (Along south bank Río Cauto.)

General direction: W. Distance: 43.5 miles.

IN GENERAL.

This trail follows the south bank of the Cauto River as far as Paso de las Estancias, crosses here to the north bank and follows the Cauto River as far as Barrancas, where it again crosses the river to the south bank; 0.5 mile west of Barrancas the trail divides, the right half crossing to the north bank and following the river to Ingenio Viejo, the left half continuing along the south bank of the river to Hondo. The water in the Cauto River is plentiful and excellent at all seasons, and fords are found every 2 or 3 miles. In the dry season the fords are practicable for all arms, in the rainy season for mounted troops only, and during freshets they are impracticable. The river passes through forest and pasture lands where camp sites are to be found suitable for any command that may be operating in this district.

IN DETAIL.

Miles from Cauto
Abajo.

Leave the store at Cauto Abajo, go north; turn west, passing through large pasture. 0.5
1.0

Turn to north at foot of hill. At this point a trail runs west over the hill and through forests to El Quemado; continue north to Cauto River, follow along west bank of river, through occasional pasture land and forests to Paso de las Estancias; at this point is a large farm and a two-story building made of concrete blocks. The river at this point makes a decided bend to the west. 2.5
5.2
5.5

Cross Cauto River to railroad station; ford fair. From the railroad station one road goes to southeast to Bayate, one north to Bio, one east along the Arroyo María to the San Luis-Mayarí trail. After crossing river, go west along north bank to Arroyo María; bad crossing; continue west to crossing of river to Barrancas, on south bank; ford excellent; at this point a good cart road runs southeast to El Quemado; continue west from Barrancas. 6.5
8.0

A trail leads to northwest through pasture and crossing Cauto River to north bank follows same to Ingenio Viejo. The trail on south bank leaves river at this point; goes west through forests, coming out of forests opposite Cayo Francés on bank of Cauto River. A 8.5
10.5

Miles from Cauto
Abajo.

- ford at this point is excellent. Continue west to Conasta.
- 11.0** A ford here from trail on south bank to north bank is excellent. Continue west along Cauto River through
- 12.5** forest to Arroyo Blanco, crossing the Arroyo Pimienta and Arroyo del Muerto near Arroyo Blanco. From Arroyo Blanco a trail goes south to Alta Gracia and Ceiba. A ford, passable for cavalry only, leads to north bank. Continue northwest along river bank to large pasture and turn west entering forest and reaching
- 15.5** small farm of Santiago Rector. The trail on south bank runs west 0.2 mile and becomes impassable. Leave farm, cross good ford to north bank, continue along river which bends to north, and cross to south bank
- 16.0** at ford called Jagua. This ford good. At this point a trail leads southwest to south to Alta Gracia. Continue
- 19.5** northwest to a point opposite mouth of the Bio River.
- 21.0** A ford at this point to north bank. Turn west to Vega del Negro, a small settlement of 7 shacks. A ford to
- 22.5** north bank; trail goes west and then southwest.
- 23.5** Trail here branches, one to south to Alta Gracia
- 26.5** and Alegría. The main trail goes west to Villa Seca. A trail at this point southeast to Alegría and wagon
- 28.0** road southwest to Salao. Continue northwest to La Traviesa, a large corral and several shacks situated in a pasture. From this point a good wagon road goes south to Salao and north crossing the river to San Germán and Holguín. The trail goes northwest to a point
- 29.5** opposite Padre Galón, here crossing an arroyo. A trail leaves to the south and west to Dos Ríos. Continue
- 31.0** along river bank northwest to Sabanilla, crossing to the north bank; continues west to the mouth of the
- 33.5** Contramaestre River. Cross at good ford to south bank; follow west bank of Contramaestre River.
- 33.7** Turn west; pass through large pasture; follow along
- 37.5** Cauto River to Paso Viejo; 1.5 miles from Paso Viejo a trail leads south to Las de Guanés; 0.7 mile east of Paso Viejo there is a good ford to north bank. From Paso Viejo another trail leads south to Las de Guanés.
- 39.0** Continue west to Cayo Francisco. A trail leads southeast to Las de Guanés. Continue along river bank
- 41.0** west to La Yaya. The main road from Jiguaní to San Pedro and Holguín passes through this point from
- 43.5** south to north. Continue west to Hondo, a small settlement of 4 shacks, a large corral, and farm. This trail continues west along the Cauto River to the sea.

ROAD No. 12.

BARRANCAS—INGENIO VIEJO. (Along north bank of Río Cauto).

General direction: NW. Distance: 38.5 miles.

IN GENERAL.

Trail follows river bank, where every 2 or 3 miles there are fords during dry season. During high water these fords can be crossed by mounted troops only.

IN DETAIL.

	Miles from Barrancas.
Leave Barrancas on south bank of river, go west to cross trail; take trail going northwest.	0.5
Cross river; ford good; continue along river bank to Cayo Francés. A trail leads to northeast to Bio on Río Bio. A ford crosses to south bank.	1.0
	2.5
Continue west to Conasta. A trail leads north 0.5 mile where it divides, one branch going northeast to the Sabana San Juan, the other going northwest, striking the main trail 1.5 miles north of Arroyo Blanco. Trail continues west from Conasta to a point opposite Arroyo Blanco. A ford to south bank practicable for carts. Follow along river bank north to a ford to south bank. Continue along north bank northwest to a point opposite Santiago Rector. Continue northwest to Bio River. East of the Bio River (1.2 miles) the trail divides, one branch crossing at the mouth of the Bio, practicable in dry season only; the other crossing the Bio 0.7 mile from its mouth, practicable at all seasons. A ford from the mouth of the Bio to the opposite bank of Cauto River. These branches unite west of Bio River. From this point a good wagon road leads northeast to Los Indios. Go west to a point opposite Vega del Negro; a ford to south bank. Continue west to a point opposite Villa Seca. A logging trail leads north into forests. Go northwest to a point opposite La Traviesa, near lagoon of same name. From this point a good wagon road leads northwest to San Germán and Holguín. A good ford to south bank. Go west to Padre Galón. A road leads northeast to the La Traviesa-San Germán road. Go northwest to Sabanilla, crossing Arroyo Ramírez (or Padre Galón) midway between Sabanilla and Padre Galón. Continue west to a point opposite Contramaestre River. Trail leads west along north bank of Cauto River to a deep arroyo.	3.2
	6.2
	7.2
	10.5
	15.5
	16.0
	17.0
	22.5
	22.7
	25.0
	26.2
	28.7
	29.2

Miles from
Barrancas.

- Continue along river to a good dirt road leading north to San Pedro and Holguín. Trail goes southwest and west, crossing an arroyo and passing a ford to south bank, reaching Yuraguano. Cross two arroyos west of Yuraguano and continue west to Algodones. A trail goes from this point north to San Pedro. Cross two arroyos west of Algodones. Continue along river to a point opposite La Yaya. A good dirt road goes north to San Pedro and Holguín, and crossing the river goes south to Jiguaní. Trail follows bank to La Vega de Maceo, a ranch with large corrals. Continue west to Ingenio Viejo. A trail goes north from this point to San Pedro. Trail follows the north bank of the Cauto River to the sea.

ROAD No. 13.

SANTIAGO DE CUBA—NIMANIMA—ASERRADERO—RÍO SECO—GUAMÁ.

General direction: W. Distance: 45 miles.

IN GENERAL.

Good dirt road for about 4 miles from Santiago; a trail for about 14 miles to the Nimanima River; then a dirt road to Aserradero River; trail from there on to the Cativar River; from there to Río Seco an unimproved road; from there on a trail.

IN DETAIL.

Miles from Santi-
ago.

- Road leaves Santiago on northwest, following Cobre road for about 0.5 mile, turning to the southwest east of and near cemetery, going around bay shore for about 1 mile. Leaves bay shore at west extremity of Miradero Bay, an arm of Santiago Bay, in a southwestern direction to the crossing of the Cobre Railroad, about 2 miles from Punta de Sal, then southwest along coast to Nimanima River, continuing west along coast through grazing lands, crossing Ríos Cañizo, Cuero, Juan González, and Boca de Dos Ríos to Aserradero; west through forest lands to the Cativar River; continuing west along coast from Cativar River to Río Seco; continuing on west, trail becomes rough and mountainous to Guamá. Here trail ascends steep mountain ridge and continues westward toward Manzanillo. During rainy season road until it strikes coast is very

muddy. Best road out of Santiago is to go to Dos Caminos de Santiago and then cut south through private property. Road crosses many small streams at intervals of 2 or 3 miles, affording good camping places on private property for commands of 1,000 or more. Wood, water, and grass convenient. Large stock farms along this road as far as Masío del Maco, 40 miles from Santiago.

ROAD No. 14.

MANATÍ—SAN MIGUEL DE MANATÍ—LA QUE DIOS DIÓ—VICTORIA DE LAS TUNAS.

General direction: S. Distance: 26.6 miles.

IN GENERAL.

A fairly good dirt road in dry season, but boggy in places. Practicable for light-loaded wagons. Impassable for wheeled transportation in rainy season.

IN DETAIL.

Leave the town from the southeast, road running in a southeasterly direction. Miles from Manatí.

At this point road to Puerto Padre branches off to the left. 0.8

Road forks, the left-hand branch going by a farm house with a well (the only well in the vicinity of Manatí). Road turns to right and continues in a general southerly direction through a country flat, wooded, and swampy. At 3.3 miles the road crosses a dry run (Río Las Lagunas; old wooden bridge here, but it is not used and is not in good repair). 1.2
1.3

Road turns to left, country remaining unchanged, and at 5 miles enters a wire-fenced lane. 3.5

Passes San Miguel de Manatí and continues to 6.3 miles, where another road branches off to the right, which also goes to Las Tunas, but by a more westerly and indirect route. From this point the road becomes more boggy and would be impassable for wheeled transportation in wet weather. 5.6

Fords an excellent little stream called the Manzanillo River, and continuing passes La Que Dios Dió. The road crosses a dry run, and after crossing take the left-hand road (the right-hand road is a country road leading 10.3
10.5

Miles from
Manatí.

- to some fields). At 13.7 miles a trail branches off to the left to San Juan de Dios, finca.
- 14.3** The road strikes the left bank of the Mendarón River (quite a good-sized stream), follows this bank to 15.2 miles, where it crosses the stream on a wooden bridge about 15 feet high by 55 feet long. (From 14.3 miles the road becomes slightly less boggy, but is still bad.)
- 16.0** A country road branches off to the right and at 17.2 miles the road forks. Take left branch. (Right branch also goes to Las Tunas via Mendarón.) At 17.5 miles the
- 17.8** road ascends a rocky hill, and continuing passes La Cuaba, where it emerges from the swamp, the country becoming more open and rolling. At 18 miles a trail leads off to the left and road descends a steep and rocky hill and immediately ascends another hill, also steep and rocky.
- 18.3** The road descends and again becomes level and more boggy.
- 18.9** Crosses a small stream (Arroyo Rincón) (water bad). Road enters a wire-fenced lane at 18 miles, which continues to 20.3 miles, the country from 18 miles becoming open pasture land. Road becomes good from 20 miles.
- 20.9** Another road enters into the road described from the right rear. The road turns to the left and runs along wire fence (on the right) to 21.9 miles, the country becoming a slightly rolling prairie.
- 24.4** At this point the road strikes a wire fence (on the right), continues, and crosses the Cuba Company Railroad at 26.1
- 26.6** miles (near the depot) and enters the town of Victoria de las Tunas from the northeast.

ROAD No. 15.

HONGOLOSONGO—EDÉN—LA ESTRELLA—RÍO SECO.

General direction: SW. Distance: 26 miles.

IN GENERAL.

A difficult trail, practicable for pack animals only.

IN DETAIL.

Miles from
Hongolosongo.

- Leave Hongolosongo going northwest along Dos Palmas road to Cana River, ascend Cana River about 100 yards,
- 3.0** and then trail strikes west, zigzagging up mountain,

Miles from
Hongolosongo.

reaches top. On north, Santa Clara; on south, Olimpo. Trail then crosses valley circling to the north. In the valley a trail branches to the south to Santa Barbara, then trail comes to a point called Cruz de Cauto, on top of another ridge. Here one trail branches to the south and goes to coast by way of San Pedro and Cojimar rivers. Another trail to the north to San Carlos and Bella Vista; main trail turns to right, descending mountain, and runs along south side of high ridge. Several trails branching and descending south into valley; take any of these. Main trail following along ridge, crosses to north side of ridge, descends into valley, goes north along stream through Matilde to Solis. Trails that descend into valley come with a main trail along stream, which it follows west to Esmeraldo; here trail turns to south, skirts along mountain, and circling around Esmeraldo to the west crosses ridge. Here one trail branches to the right, going to Fomerito; one to the left descends into valley to Moynia. Here one trail branches to right to Guadalupe and other trail goes on west, ascending mountains to La Cubana. Here strikes small stream, which follows west down to Edén, striking main trail to coast. From La Cubana another trail goes southeast up into Flesis, where it also strikes the trail to the coast. Scattered patches of coffee and cacao along this trail and a few cattle. Camp sites for company at Esmeraldo and La Cubana; for a brigade at Edén. Go west from Edén, crossing the Cauto River, and ascend hill on other side, then go north and northwest around hill, then west; trail branches to Marcella. Continue west, crossing another branch of the Cauto River; go up this stream to La Estrella; go south, crossing stream, and up steep hill, running along top of ridge to southwest to the top of the range of mountains; start to descend to south, zigzagging down mountain side to San José in Río Seco valley; then south down Río Seco valley to south coast road. Camp sites at Marcella and San José for one regiment; fuel, water, and grass convenient.

4.0

5.0

8.0

11.0

14.0

15.0

16.0

18.0

20.0

26.0

ROAD No. 16.

BAYAMO—BARRANCAS—VEGUITAS—DON PEDRO—MANZANILLO.

General direction: W. Distance: 36 miles.

NOTE.—During 1908 a metaled road was under construction connecting Bayamo and Manzanillo.

IN GENERAL.

The road passes over level country. There is a good ford over the Yara River, and at Veguitas there is a good ford over the Buey River. The main road from Bayamo to Veguitas is impassable, and a trail parallel to the road is used. Three-quarters of a mile south of Bayamo is a ford over the Bayamo River, but the river is subject to sudden rises that cut off the town of Bayamo.

From Bayamo to Cauto is an uncultivated, timbered swamp.

IN DETAIL.Miles from
Bayamo.

- Leave Bayamo going southwest. Pass old potrero de Juraguá (or Ingenio Viejo), reach the Sabana de Cayo
- 3.0** Largo, and enter Mabay woods.
- 4.5** Arroyo Bacajama.
- 7.0** Río Mabay.
- 10.0** Cross Cañada Larga and a low country known as Laguna Jucaibama. Then pass La Sabana de Jucaibama and old ingenio of same name. Also pass the finca of Jucaibamita and cross Río Guabatiabo. Good grazing can be found along this road.
- 13.0** Pass Ojo de Agua and reach Barrancas. This is the site of old ingenio with same name as town. Cross Arroyo María Alonso and cross Río de Buey. Pass ruined ingenio of Caunao. Pass Casa del Curro and a locality called Estancia de Rivero.
- 20.0** Pass Naranjo, Veguitas, and tienda de la Unión; also Arroyones; Río Viejo, which is also known as Hato de Gutiérrez. At Veguitas a road known as camino de Sordo Martínez runs south to Yara. Cross a small
- 24.0** arroyo called Infierno and Río Jicoteas at El Paso Real. Pass finca Yara Abajo, where a road runs south-east to the town of Yara.
- 26.0** Reach Río de Yara, which is crossed at a place known as Paso de Tagua. The road then runs west, south of the Yara River, past Don Pedro, Palmas Altas, Arroyo Cubitas, old ingenios Trinidad and Valdespino. After passing tienda de Don Julián and sites of old ingenios
- 36.0** Fons and Figueredo and Arroyo del Salado reach Manzanillo.

ROAD No. 17.

COJÍMAR—HONGOLOSONGO—SANTA ELENA—MATILDE.

General direction: NW. Distance: 21 miles.

IN GENERAL.

1. Cojimar to Hongolosongo.—A very difficult trail.
2. Hongolosongo to Matilde—A fairly good dirt road for 3 miles, and then becomes a fair trail.

IN DETAIL.

The road goes north up valley of Río Cojimar through forest lands. Miles from
Cojimar.

Road branches to the right to Campo Largo; to left **3.0**
to Dolores (take latter), where the road again branches,
one going to the north to San Pedro and Cruz de Cauto,
about 9 miles, the other to the northeast to La Unión
(take latter), 6 miles, and then down the valley to Hon- **12.0**
golosongo. Good camping places around Hongolosongo
and Dolores. Leave the town to the northwest and
cross Cañas River. Just beyond river a trail branches **12.5**
from road to right, passing through gate, striking Cobre-
Dos Palmas road at La Pimienta. Main road continues
northwest.

Private trail goes north to Dos Palmas road. On **14.0**
southwest of road is Concordia; on northeast is Barra-
quera (farms).

Road becomes trail, ascends steep hillside, and passes **15.0**
through ravine between two mountains at other end of
ravine Santa Elena. Passes through this farm and at **16.0**
other side is a store; here trail branches on to north-
west to Dos Palmas; other trail, which follow, goes in
general direction of west, crossing small stream through
Aurora and Curbia to San José.

Here trail branches to north to Dos Palmas; to south- **19.0**
west to Bella Vista and Fraternidad. Other trail goes on
west, skirting around hill, then goes north to La Provi- **21.0**
dencia; then west until it strikes Matilde-Solis trail near
Matilde. Good camp site in vicinity of Hongolosongo
for a brigade.

ROAD No. 18.

VICTORIA DE LAS TUNAS—NARANJO—EL YAREY—PUERTO PADRE.

General direction: NE. Distance: 35 miles.

IN GENERAL.

A fairly good road in the dry season, but rough in places. Practicable for light-loaded wagons.

IN DETAIL.

Miles from Las
Tunas.

Leave the town from the northeast, cross the Cuba Company Railroad at 0.5 mile, near the depot, and follow the telegraph line, the road running in a general north-easterly direction through an open and slightly rolling country.

- 1.7 The road enters a wire-fenced lane.
- 2.7 Crosses a small, fordable stream. (Arroyo Rincón.)
- 3.2 The wire fence on the right ends and a road branches off to the right around the fence from the road here described. At 4 miles another road branches off to the right and the country becomes more wooded. Continuing through a wire-fenced lane, the road turns to the left at 5.9 miles. (At this point two roads branch off to the right.)
- 7.8 Passes a tienda and crosses a small stream. At 8.9 miles a road, branching off to the left, leads to Río Blanco. Country becomes more wooded.
- 9.8 Passes Palmarito, and at 10 miles a trail branches off to the right.
- 10.8 At this point another road crosses at right angles the road here described.
- 12.0 Passes Naranjo de Palmarito and crosses a dry run at 12.1 miles, the country becoming slightly rolling and more wooded. (Wire fence and pastures on either side of the road practically all the way from Las Tunas to Naranjo.)
- 12.4 The road ascends a short, steep hill, Loma de Naranjo, and at 13.6 miles descends.
- 14.0 The telegraph line leaves the road to the left and comes back again at 18.5 miles. The road and country continue unchanged to 19.7 miles. At this point a trail crosses the road at right angles.
- 20.7 The road leads into a pasture through an iron gate. (There are no habitations from Naranjo to 21.2 miles.)

Crosses the Vázquez River (an excellent little stream), passes through a wooden gate, and leaves pasture through another gate at Vázquez. Continuing through a wire-fenced lane, the road crosses El Yarey Creek and passes through El Yarey. (From El Yarey another road leading off north goes to Manatí.) From Vázquez the road gradually turns and runs almost due east through wire-fenced lanes, the country being large pasture lands with scattered woods.

Miles from Las Tunas.

21.9

23.3

25.2

At this point a road crosses the road here described at right angles.

27.4

Crosses the Maniabón River (a good sized stream) by ford. (There is an old wooden pile bridge here, but it is not now used, and is not in good repair.) Immediately after crossing the stream the road passes through Maniabón, turns to the left, and continues in a northeasterly direction through wire-fenced lanes. The road crosses dry runs at 29.9 miles, at 30.7 miles, and at 31 miles.

28.2

At this point the road crosses a small stream, turns to the left, and at 31.6 miles again crosses the same small stream.

31.1

Road turns to right and at 34.3 miles ascends and crosses a ridge, passing an old stone fort at the top of ridge.

32.7

Descends and enters the town of Puerto Padre from the southwest. (The road described above was a very important one during the Spanish régime, as all supplies for troops at Las Tunas had to pass over this road from Puerto Padre.)

35.0

ROAD No. 19.

PUERTO PADRE — CHAPARRA — LOS DOS HERMANOS — VELASCO — CANDELARIA — GIBARA.

General direction: E. Distance: 34.7 miles.

IN GENERAL.

1. Puerto Padre to Chaparra.—A fairly good dirt road in the dry season, but rough in places. Practicable for bull carts and light-loaded wagons. There are no facilities at the different crossings of the railroad, and these would probably be the worst places on the road for loaded wagons.

2. Chaparra to Velasco.—A fair dirt road in dry season, but rough in places. Practicable for bull carts and light loaded wagons for first

6.5 miles. From this point on the road becomes a trail and is impassable for wheeled transportation. Wheeled transportation should take the road that branches off to the right from the road described at 7 miles. The road described follows the Chaparra Railroad the entire distance from Chaparra to Velasco.

3. Velasco to Gibara.—A fairly good dirt road in the dry season, but rough in places. Practicable for bull carts and light loaded wagons.

IN DETAIL.

Miles from
Puerto Padre.

- Leave the town from southeast corner, cross the San Manuel Railroad track at the south end of the old distillery, and follow the telephone line. Road skirts the bay, running in a general direction a little south of east, through a wooded and swampy country. Passes through
- 0.8** a wire-fenced lane and crosses a small stream. Continues in same direction and crosses another small stream at 1.6 miles.
- 3.3** At this point turn sharply to right, leaving the telephone line. At 3.6 miles take road turning to left. (Another road leads straight on.)
- 3.7** Road crosses by ford a good sized stream; turns to left at 3.8 miles and strikes telephone line again at 4 miles.
- 5.1** Road turns to right and at 5.2 miles take left-hand road turning to left; right-hand road goes to San Manuel.
- 5.4** The road strikes the Chaparra Railroad. Turn to left, follow the railroad track, and cross to right of track at 5.5 miles.
- 6.0** The road strikes the cane fields of Chaparra, which continue unchanged until Chaparra is reached. Road crosses the railroad at 6.3 miles, at 7.6 miles, and two branch lines at 7.9 miles.
- 8.7** At this point the road crosses a boggy stream, and again crosses railroad at 8.8 miles. The road continues straight on from here, leaving the railroad, which turns to the right.
- 9.0** Crosses another branch of railroad; continues and crosses a dry run by a wooden bridge at 9.2 miles.
- 10.0** Continuing, the road enters Chaparra from the northwest, passing around east end of mill. Leave Chaparra around east end of mill, turn to right, cross Chaparra River over an iron bridge, and follow railroad almost due east through level cane fields.
- 10.7** The wagon road to Velasco branches off to the right
- 11.1** across railroad track. Cross a branch line of railroad.

Turn to right across railroad and follow another branch line to Velasco, the road running slightly east of south.	Miles from Puerto Padre. 12.4
Pass a cane colonia consisting of 10 wooden houses, and at 14.4 miles pass another consisting of 1 tienda and 12 houses.	13.1
Cross to right of track and pass another colonia consisting of 20 wooden houses. At this point a road leading off to the right goes to San Juan. Cross to left of track.	14.5
At this point the road crosses to right of track and becomes a trail impassable for wheeled transportation.	16.5
Cross to left of track and 100 yards farther on cross back to right.	17.8
Continuing, the road passes Los Dos Hermanos. At this point another road crosses road described at right angles, the left branch going to Velasco via San Cristóbal.	18.5
Road crosses track at right angles and a road from Calderón to San Cristóbal crosses trail described at right angles.	19.8
Crosses a small stream with steep and bad banks, and crosses a dry run with steep banks.	20.5
At this point a road crosses trail described at right angles. Cross under track to left side; cross a small stream with steep banks, and 100 yards farther on cross back to right of track.	20.9 21.4
Cross a dry run and strike a wagon road and follow right branch; left branch leads off under railroad bridge to the northeast.	22.3
Cross dry run. Road turns off to right and leaves the railroad. The trail described continues, following the railroad.	22.4
Cross a small stream with steep banks; cross to left of track and enter Velasco from the northwest. The road leaves Velasco from the east and continues through a wire-fenced lane in a general easterly direction, the country being rolling and alternately open and wooded. Roads branch off to the left from the road here described.	22.6 23.4
Passes Lanasa. At this point a trail branches off to the right. Wire-fenced lane continues, and country remains unchanged.	26.9
The road descends and crosses a small muddy stream (Arroyo Socarreño, with rather steep approaches) and then ascends.	27.7
Crosses a small muddy stream (Arroyo La Gatera) and 200 yards farther on again crosses the same stream.	27.9
At this point a trail comes into the road from the right rear.	28.3

Miles from
Puerto Padre.

- Passes Las Bocas. From here a road leads off to the right for Auras and Holguín.
- 28.7
- 29.3 Crosses a small muddy stream with steep approaches. Trail crosses the road described at right angles. The country becomes more wooded.
- 30.1 The road descends a steep bank and crosses Río Cacuyuguín, a small, muddy stream, then ascends.
- 31.0 Passes Candelaria (at this place are the ruins of an old Spanish fort built in 1868).
- 31.1 At this point a road branches off to the right from the road described.
- 31.8 Road turns northeast through a lane and descends and crosses the Cacuyuguín River (a good-sized stream; west approach steep, east approach more gradual), and after crossing the river turns to the left. At this point a road branches off to the right from the road described and goes to Auras.
- 33.2 Crosses a small stream; a trail branches to the left.
- 34.0 At this point a stone blockhouse, in good repair except roof, situated on a ridge of hills 500 yards to the left, commands the road. Road gradually rises.
- 34.7 The road reaches Contimplora, turns nearly north, and enters the Holguín-Gibara road, which it follows to Gibara.

ROAD No. 20.

DOS CAMINOS (NEAR SANTIAGO)—SANTA FILOMENA—HATILLO—PALMA SORIANO.

General direction: NW. Distance: 21 miles.

IN GENERAL.

Wagon road for about 4 miles from Dos Caminos, then becomes a trail to Yarayabo, about 16 miles; wagon road then to Palma Soriano, about 21 miles.

IN DETAIL.

Miles from Dos
Caminos.

- Road leaves northwest side of Dos Caminos de Santiago,
- 6.0 goes a little north of west to Puerto de Bayamo; here ascends mountain, very rough and rocky, and goes north
- 9.0 to Santa Filomena; then northwest, following Yarayabo
- 16.0 River to Yarayabo; here continues northwest to Hatillo,
- 17.0 then to Palma Soriano. Good camp sites about 4 miles
- 21.0 from Dos Caminos near the source of the Guao River for a battalion, and in vicinity of Yarayabo, Hatillo, and Palma Soriano for a regiment.

ROAD No. 21.

ARROYO BLANCO—REMANGANAGUAS—LAJAS—GUANINAO—LAS ANIMAS—BIJAGUAL.

General direction: SW. Distance: 18.5 miles.

IN GENERAL.

A dirt road which frequently becomes only a trail.

IN DETAIL.

	Miles from Arroyo Blanco.
The road branches from the telegraph road at a canteen on the south side of the road and turns north for 300 yards, when it turns west and continues in this direction with very few branch roads to Remanganaguas.	
Pass through La Aduana, two houses on south side of road. Road crosses arroyo with very steep banks, probably impassable for wagons.	1.0
Pass Juan Baron canteen north of road; 10 yards west of this canteen trail goes north to Soledad, Condongo, Niguabo, and San Francisco; 100 yards west trail goes south to Aguacate.	1.5
Through country cultivated for a few hundred yards on each side of the road, with houses scattered irregularly along road.	1.5-2.5
Pass through Descanso de los Muertos; wooded country, with few small cultivated spots.	3.0-4.0
Pass through Palo Picado, wooded country.	4.0-5.0
Large canteen south of road; 50 yards west road descends hill 75 feet long, slope about 1 on 2. This slope could be avoided by making a small detour to the south and a little cutting.	4.5
Through Los Pasos, wooded country with very little cultivated land.	5.0-6.0
Cross small stream, water alkaline and not good. About 100 yards west trail to Lajas passes through gate under large tree and goes south.	6.5
Pass cemetery east of road.	6.7
Remanganaguas. Cedar and mahogany timber along road in vicinity of canteen. Good camp site, except that water is alkaline and limited in quantity. Good grazing. A bull-cart road used to haul timber to Lajas and Remanganaguas from the woods through which it passes. In good condition in the dry season, but	7.0

Miles from
Arroyo Blanco.

- impassable in rainy weather. Leaves the Palma Soriano-Remanganaguas road through a gate under a large tree 400 yards southwest of the Remanganaguas cemetery. Enters the Lajas-Mabio-Baire road 600 yards north of the point where the road to Baire via Maffo branches off.
- 10.0** Lajas. Leave Lajas on a road passable for bull carts in the dry season. Follow along the Lajas River the whole distance, crossing frequently. Through wooded country, mountainous on both sides, although trail itself is practically level. Leaves Lajas at a canteen 0.5 mile east of the point where the Palma Soriano-Baire road crosses the Lajas River. Enters Guaninao from the north in the eastern edge of the barrio.
- 13.0** Guaninao. From Guaninao road goes west through cultivated land. Enter woods; road muddy and much cut up by carts hauling timber.
- 14.5** Pass Arroyo Escondido. Road continues through woods to Las Animas, on the Contramaestre River. Large quantities of cedar and mahogany timber collected here during the dry season to be floated down to the coast when the river rises. Here the road becomes a trail and runs northwest through woods, between the Contramaestre River on the south and the mountains on the north, to Dos Bocas, where the Mogote and Contramaestre rivers flow together. Cross Contramaestre River at this point and continue between the two rivers
- 18.5** to Bijagual, joining Baire road 0.5 mile northwest of Bijagual.

ROAD No. 22.

LA MAYA—RAMÓN DE LAS YAGUAS.

General direction: SE. Distance: 18 miles.

IN GENERAL.

A fairly good dirt road passable for carts as far as Hierba de Guinea in dry season, but very muddy in the rainy season. Passes over fairly level country with no large streams to cross.

IN DETAIL.

The road leaves La Maya from the southeast corner, parallel to the railroad and on the north side of it. In the edge of the town a road goes south across the railroad to cafetal Isabelita.

Road forks at a cantina; right-hand road goes south past the Ponupo mines to Ti Arriba. Main road continues east. Miles from La Maya. 0.5

Pass the old ingenio Ti Abajo, old chimney on the north side of road; road level; underbrush on both sides of road. 2.2

Cross Ti River flowing northeast; good ford; smooth rock bottom, water about 1 foot deep. After crossing river road turns south through pasture land. 3.5

Pass the old ingenio Belleza; chimneys and old small house east of road. After passing this point road turns southeast. 4.7

Cuatro Caminos. Trail northeast to Palenque. 7.2

Trail south to Ti Arriba; very rough—almost impassable. Main road turns east through coffee and cacao plantations; very muddy. 7.7

Pass old ingenio Perseverancia to the west of the road and Recompensa to the east. Good pasture with some small bushes. Very steep hill west of road. 8.7

Trail west to Ti Arriba; goes up steep hill; this trail is better than the one from Cuatro Caminos, but passable for pack transportation only. Main road turns east through fairly level pasture; very high and steep mountains to south of road. 9.2

Hierba de Guinea, town of 12 or 15 houses. Road continues east to Guantánamo. The Ramon road becomes a trail and turns south through broken, wooded country. 12.7

Pass La Juba, large cacao plantation at eastern foot of long, rocky mountain. 15.0

Ramón de las Yaguas, south of mountains. Trail to Guantánamo and Santiago. 18.0

ROAD No. 23.

SABANILLA—SANTA MARÍA—JARAHUECA—SAN ANTONIO—AVIS-
PERO—ARPON.

General direction: N. Distance: 23 miles.

IN GENERAL.

For 5 miles this road is used to haul timber out of the forests, and is passable for carts. The remaining distance it passes mostly through dense forests and is passable for pack transportation only. This is a very difficult trail beyond Jarahueca and is not much used.

Passes through country very thick in timber and well adapted to coffee, but not developed on account of the distance from the coast and the lack of transportation.

IN DETAIL.

Miles from Sabanilla.

- Road leaves the La Maya-Guantánamo road at site of old ingenio of Sabanilla de Vicente, and crossing the Cuba Eastern Railway goes north through heavy forests.
- 5.0** Road enters small clearing covered with grass. The road forks, the one to the right is a blind timber road; the left winds up a steep hill covered with grass; it is impassable for wagons.
- 6.0** Santa María de Agüero, one house in small cultivated place. This point is on the divide, all streams north of this ridge flowing north. From here to Java fairly good trail in dry season; passes through wooded country.
- 9.0** Trail goes east to Málaga Arriba.
- 10.5** Arriba; few small houses in wooded country.
- 13.5** A sawmill and coffee mill on stream of fairly good water (alkali). Spring near stream would supply company with good water; very slightly alkaline. The country south of this point to a distance of 0.5 mile cultivated in coffee. Good pasture in the vicinity. At this point the road forks, the right going northeast to Seboruco and San Benito and on to Mayarí; the left turns west, crosses a river and goes through pasture land 0.5 mile. It then turns north, passes through to Vegeria and follows the river.
- 15.5** Leaves the river and joins the Songo-Ensenada cart road at Abajo, a house in a small clearing. From here to Ensenada road passable for carts, through heavy wooded country. Road is very difficult for pack or saddle on account of the mud. Road is never dry and is almost impassable even in dry season for anything except bull carts; 200 yards north of this point the road forks; the right going to a small clearing 1 mile distant;
- 16.5** main road goes northwest to Ensenada, in clearing on the river; place could be found for poor camp for one battalion of infantry. From here trail goes west, and
- 19.5** another trail follows river north to San Antonio, 19.5 miles.
- 21.0** Avispero.
- 23.0** Arpon. Poor trail through wooded country.

ROAD No. 24.

REMANGANAGUAS—RATONERA.

General direction: W. Distance: 13.3 miles.

IN GENERAL.

A good dirt road following ridge of first foothills on south side of Cauto River valley.

IN DETAIL.

	Miles from Remanganaguas.
Leaving Remanganaguas going north-northwest, cross the Guaninao River; crossing bad; to Fray Juan, turning west. Continue in this direction, passing old vegas Buena Vista and Cabeza del Sao.	1.0 1.5
A trail to north to Alegría and the Cauto River. The point on the main road from which the trail to Alegría turns off is very hard to find, although an excellent and well-defined trail. Guides may be procured at Remanganaguas and Fray Juan. Proceed northwest to top of divide between the Guaninao and Caimeta rivers, where a trail leads north to Caimeta and Salao. From this point a view may be obtained of the whole Cauto valley and the valley of the Contramaestre. Proceed west to crossroads. A good dirt road runs generally north down the Contramaestre valley, crossing the Cauto River at La Traviesa and going thence to San Germán on the Cuba Company Railroad and to Holguín. The old Santiago-Bayamo road proceeds southwest from this point, crossing the Guaninao and the Contramaestre rivers. Excellent camp sites for a brigade exist on both banks of each river; fuel, grazing, and water in abundance near their junction. This crossing is exceedingly difficult for even cart transportation. It would take the labor of one company one day to repair this point so that it might be passable for wagons. Proceed northwest-north to Venta de Casanova. A private road leads north for 0.2 mile to a large ranch house, barns, and corral, situated on top of a prominent hill observable from all points of the valley. Proceed west to Descanso. A road and trail leads north to Salao. Proceed west to Tumba Vacas; at this point the road passes over a hill from which one obtains a view across the Cauto valley to Holguín; west to Bayamo; northeast to Mensura Mountain; and south to the coast range. A road directly west to Jiguaní. The old Santiago-Bayamo road goes southwest to La Ratonera.	2.0 3.0 4.7 5.5 7.5 8.0 9.0 13.3

ROAD No. 25.

**BIJAGUAL—MANACAS—COME CARA—EL FRANCÉS—ARROYO RICO—
MARGARITA DE CAMBUTE—CARMELO—RAMÓN DE GUANINAO.**

General direction: E. Distance: 13 miles.

IN GENERAL.

A fairly good trail, passing through wooded country, in the valley north of the coast mountains. Difficult in rainy weather.

IN DETAIL.

Miles from
Bijagual.

From Bijagual road goes south. At a store the road forks. The road to the left is the main road to Caney via La Güira, Ceiba, and Ramón de Guaninao. The right-hand road passes west of the store and turns southwest.

- 1.0** Manacas; store north of road. Trail continues west to Negros via Yayal and Mogote. Trail for Come Cara passes through gate opposite the store and goes south 0.5 mile, then east.
- 2.0** Come Cara; store north of road. Trail southwest to Ojo de Agua, 1.2 miles. Rocky trail. From Come Cara
- 3.5** the trail goes southeast to El Francés. Here the trail forks; right to Pedregosa, Filé and Baños Calientes; very bad trail, impassable in rainy season.
- 7.0** Left continues east to Arroyo Rico and Margarita de
- 10.0** Cambute. From here trail goes south to Santa María on the Dos Palmas-Baños Calientes road. Trail northeast
- 11.2** to Cambute. Main trail continues east to Carmelo, a store on the Ramón de Guaninao-Santa María trail, 1.2 miles north of Santa María.
- 11.7** From Carmelo the trail goes north to Palmarita; from here there is a trail southeast to Victoria, cocoa plantation.
- 12.0** Cross the Cambute River flowing east. This river empties into the Caney 50 yards east of the trail. The Caney River follows the trail from Carmelo to Ramón.
- 12.2** Trail west to Cambute, 1 mile.
- 13.0** Ramón de Guaninao.

ROAD No. 26.

SANTA MARÍA DE ESPAÑA—BAÑOS CALIENTES.

General direction: W. Distance: 15 miles.

IN GENERAL.

Practicable for pack animals only.

IN DETAIL.

Goes southwest from Santa María, running along mountain range. Miles from Santa María de España.

Ascends mountains to La Fortuna and goes southwest	1.0
from La Fortuna uphill about 100 yards; trail branches;	2.0
take trail to west, passing to the left of gate through	
which main trail runs. Trail runs through forest lands	
in a general direction of west, apparently running along	
top of mountain range, finally descending into a valley	
at Barrancas; cross small stream, continuing on west to	10.0
San Fermén, and continuing west through forests to	12.0
Baños Calientes, on Contramaestre River, where good	15.0
camp site for a regiment can be found.	

ROAD No. 27.

AGUACATE—RAMÓN DE GUANINAO—DOS PALMAS.

General direction: S. Distance: 10 miles.

IN GENERAL.

A difficult trail over hills and through woods.

IN DETAIL.

Leave Aguacate, going southwest, and pass over steep hills through woods. Miles from Aguacate.

A trail east to Monte Oscuro.	3.5
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Ramón de Guaninao. Trail leaves the Caney-Bijagual road in the eastern edge of the barrio Ramón de Guaninao, 0.5 mile east of the trail to Santa María at a store on the south side of the road.	5.0
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Trail goes south to Las Delicias, a house and cacao plantation. From here the trail turns southeast, passing through woods.	5.5
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San Manuel de Villa Nueva, cacao plantation.	7.0
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Miles from Agua-
cate.

- La Trinchera, store south of road. Country cultivated in coffee and cacao; a few houses.
- 7.7
- 9.5 Cross Cauto River, flowing east.
- 10.0 Dos Palmas. Trail west to Santa María. Road east joins the Cobre-Palma Soriano road at La Clarita.

ROAD No. 28.

DOS PALMAS—EDÉN—SOUTH COAST ROAD.

General direction: SW. Distance: 18 miles.

IN GENERAL.

Good dirt road for about 3 miles to Solís; from here on it becomes a trail. Good camp sites at Macucho and Guadalupe for a battalion.

IN DETAIL.

Miles from Dos
Palmas.

- Leave Dos Palmas on west side.
- 1.5 Road branches, one going to the northwest, the other southwest; take road to southwest to Solís. Here trail branches to west to La Margarita. Main trail crosses a stream, then goes south a short distance and branches;
- 5.0 here take road to right, going southwest, where trail branches; take a trail going south, crossing ridge and descending into the valley to Fomerito. Here trail branches to the east to Hongolosongo. Take trail going south to Guadalupe. Here going northwest to Macucho,
- 8.0 then going south through Prosperidad along mountain ridge to Matilde; continuing to south cross mountain and continuing along mountain ridge to southwest to Edén.
- 10.0 Continue south, ascending mountain to Flesis. Continuing south along mountain ridge to the Maestra Gap, where the ocean is in plain view.
- 18.0 Descending mountain slope to south coast road.

ROAD No. 29.

HONGOLOSONGO—SOUTH COAST ROAD.

General direction: S. Distance: 10 miles.

IN GENERAL.

Trail good for lightly laden pack animals only, passing for the greater part through forests.

IN DETAIL.

Leave Hongolosongo from the south side, skirt along west side of a small hill, cross ravine, ascend ridge, then descend ridge to the east until reach stream, where one trail then goes to Dolorita, one to Cobre, and the main trail ascends stream to the south.	Miles from Hongolosongo.
	0.5
	1.0
Trail branches west to Margarita.	1.5
Trail branches off east to Dolorita and Cobre.	2.0
Pajón store.	2.5
Retreta trail branches west to Pensil and Felicidad, and one to La Unión and Felicidad. Trail then ascends steep hill skirting along west and south edge, crosses ridge on south side of hill; from here a trail branches to the east to Cobre. Trail skirts along east side of mountain, circling around to the south of the mountain to a ridge connecting two mountains; here one trail branches to the left going down to the Nimanima valley; one to the right going down in the Canizo valley; to the south is a large, but not high mountain; to the north and west high mountains; both these trails strike the south coast road and are very steep in descending the mountains. Good camp site around Hongolosongo for a brigade. Camp near Retreta for one battalion. Good camp on south coast road near ends of these trails; also many cattle.	3.5
	5.0
	7.0
	10.0

ROAD No. 30.**COBRE—HATILLO.**

General direction: N. Distance: 14 miles.

IN GENERAL.

A trail practicable for pack trains only.

IN DETAIL.

Miles from Cobre.

- 2.0 Leave Cobre, going north to ridge, zigzagging up
- 2.2 ridge to top of mountain, then descends down into val-
- 3.0 ley to Botija; then go northwest up steep hill to Jutía;
- 4.5 then descend mountain on west into San Juan or Yara-
- 5.5 guabo River valley; go down San Juan River valley
- 9.5 to Perú; here ascend hill to the north to store where
- 14.0 trail branches, one to the northwest to Hatillo, and one
- to the northeast to Yarayabo de Duany. Camp site
- at Botija for one battalion and along San Juan River
- for a regiment. At Hatillo camp site for a brigade.

ROAD No. 31.**DOS PALMAS—SANTA MARÍA—MACUCHO.**

General direction: W. Distance: 11 miles.

IN GENERAL.

A difficult trail, good for pack animals only. Good camps on Cauto River for a regiment. From Dos Palmas to Santa María large plots of cultivated ground in coffee and cocoa.

IN DETAIL.

Miles from Dos
Palmas.

- Going west on Dos Palmas-Solís road to where road
- 1.5 branches to the northwest, take latter road, crossing
- 2.0 Cauto River and ascending mountains on west side of
- Cauto, keeping the main trail and going in general direc-
- 7.0 tion of northwest of Santa María de España, and then
- 9.0 south to Margarita de España, and then south to
- 11.0 Macucho.

ROAD No. 32.

CRISTO—TI ARRIBA.

General direction: E. Distance: 13.5 miles.

IN GENERAL.

A fairly good trail not passable for wheeled transportation. Passes through the foothills of the coast mountains, and is rough and uneven, very rocky, and extremely slippery in wet weather.

IN DETAIL.

Crosses the railroad in Cristo 25 yards north of the station, descends steep hill and crosses the river. Miles from Cristo.

Trail branches to the north to Socorro and La Maya, 0.7
via El Quemado and Guayabal.

Pass the Cujabo abandoned mines. 2.7

Store. Road forks; the right goes east and a little 3.5
south to the coffee plantation Cujabo. The left turns
north past the canteen, and after going in this direction
300 yards turns east and continues in this direction to
Ti Arriba.

Loma del Gato. From here trail goes north to La 4.7
Maya. The Ti Arriba trail continues east through broken
country; trail narrow and rough.

Store and another house north of road. From here 12.0
a trail goes northwest to La Maya via the Ponupo mines.

Ti Arriba. (After passing through Loma del Gato, this 13.5
trail passes through the old estates of Jagüita, Mamón,
Aguacate, Favorita, and Dos Amigos, in the order named.)

ROAD No. 33.

DOS CAMINOS—BANABACOA—BOCUEY.

General direction: N. Distance: 12 miles.

IN GENERAL.

Wagon road for about 4 miles north of Dos Caminos; ox-cart road
for about 6 miles north.

IN DETAIL.

Leave Dos Caminos on northeast side, going a little Miles from Dos
Caminos.
east of north.

Turns north. 0.5

Miles from Dos
Caminos.

- Crosses Guaninicúm River at Botija, continuing north
 1.5 through pasture land.
 6.0 Road turns northwest through Majaguabo.
 8.0 Turn north, one trail going west to Mayarí and Marote
 10.0 road, then northeast through forests, and then north to
 12.0 Bocuey.

ROAD No. 34.

VELASCO—UÑAS—YARENIGUEN—HOLGUÍN.

General direction: S. Distance: 17.5 miles.

IN GENERAL.

A fairly good road in dry season.

IN DETAIL.

Miles from
Velasco.

- Leave Velasco from the southwest corner of the town, the road running through a wire-fenced lane, crosses the railroad, and is fairly good.
- 0.7 A country road branches off to the left.
- 2.5 The road gradually ascends (rocky hills to the left). Continuing, the road gradually descends, becoming rocky in places, and the country slightly rolling.
- 2.8 Passing through Los Güiros, the road continues fairly good, running in a general southerly direction.
- 3.5 A road running east and west crosses the road here described, which leaves wire-fenced lane and becomes very rocky in places (wire fence on left continuing).
- 4.3 Road leaves wire fence, and country becomes very hilly and rocky.
- 4.8 Runs along wire fence on left, becoming very rough.
- 5.3 At this point a road from the right enters the road here described, which enters a wire-fenced lane and continues very rough.
- 5.9 The road leaves wire-fenced lane and enters Uñas. At this place a road to the right leads to San Andrés and one to the left to Auras. Leaving Uñas, the road crosses the Uñas River, a small stream with moderately steep banks, and entering a wire-fenced lane continues very rough and rocky with steep grades at frequent intervals.
- 6.8 At this point a country road branches off to the right at right angles from the road described, which leaves wire-fenced lane and becomes boggy.

Road again becomes very rocky (the country continuing hilly and rough) and ascends over a steep, rocky hill. Road crosses a small stream (Río Cacuyugüín) with gradually sloping but very rocky approaches. Enters wire-fenced lane and crosses a steep, rocky hill at 8.5 miles.	Miles from Velasco. 7.4
At this point a road branches off to the right at right angles to the road here described, which gradually ascends and crosses a very rough and rocky hill.	8.7
Passes through Yareniguen, and becomes slightly better.	9.3
Road leaves wire-fenced lane and becomes very rough and rocky.	9.5
A road from the left enters the road described, which continues rocky and rough.	10.2
A country road branches off to the left; road becomes better, but is still rocky in places.	10.7
Continuing along a wire fence to the left the road enters Aguas Claras, at which point it enters and follows the Gibara-Holguín road to Holguín.	11.8 12.7 17.5

ROAD No. 35.

SABANILLA—JOJÓ (JOBO) ARRIBA.

General direction: SW. Distance: 13.2 miles.

IN GENERAL.

Part of the road is nothing but a trail, frequently belly deep in mud and absolutely impassable for any kind of wheeled vehicle. It crosses a range of foothills up to the watershed, along watershed and down south slope to Jójó Arriba.

IN DETAIL.

Leaving Sabanilla, road runs along telegraph line south by west, then turns southeast, and continues in the same general direction, when Sabanilla River is crossed by ford, average depth 20 inches, sand and pebble bottom.	Miles from Sabanilla. 1.0
Road then turns south and then turns south by west, when a slough is passed on the right.	1.3
Road then continues in same general direction, following telegraph line, when it makes a sharp turn to east, when the Sabanilla River is again forded (same characteristics of ford as before). Road continues east and crosses Río Sabanilla and makes sharp turn south, when, with	2.1 2.5 3.0

Miles from Sabanailla.

- approaches steep, a very rocky hill is ascended by zigzag road, elevation changing from 200 to 400 feet. The crest. Along crest and up slight slope, when road again changes to east, following this direction and ascending hill by zigzag to 500 feet. Trail then turns southwest and ascends to 700 feet. Then changes south, little east, and so continues. This general direction is continued over the foothills, the elevation changing from 700 to 850 feet, when the ridge of hills is reached and the trail runs east along this ridge.
- It then changes southwest by west and then east by south, the elevation changing to 900 feet. (All this trail is through mountain country with few houses and well-marked places of identification.)
- Road changes southwest at same elevation and then changes to south, the elevation changing to 950 feet. Running south the trail then changes east (elevation, 1,000 feet); turning then southwest (elevation, 1,100 feet), and again to south (elevation, 1,150 feet), continuing south until crest of hill is reached (1,250 feet); then southwest downhill to 1,150 feet, changing west by south (elevation, 1,050 feet); then west to elevation of 1,000 feet. (All this road through growth of small pitch pine trees after elevation of 800 feet.) Following general line of telegraph, trail changes south by east (elevation, 950 feet), and then to south, where it again ascends to 1,000 feet; continuing in this direction, shack is passed to left about 50 feet from road (elevation, 1,150 feet). Trail then runs east, when branch road to left is met, which goes to Dos Bocas. Trail then turns southeast, when steep hill is met, known as Veredas de Caguabaja (elevation, 1,200 feet). Trail then takes general direction south-southeast and ascends from 1,200 to 1,600 feet.
- It then changes southwest at same elevation, then to west (elevation, 1,650 feet).
- Sharp zigzag turn and downhill, general direction southeast (elevation, 1,450 feet), when road changes to west-southwest, and south to elevation of 1,400 feet. It runs south and raises to 1,600 feet; changing then by zigzag uphill south (elevation, 1,600 feet), southeast (elevation, 1,700 feet), southwest (elevation, 1,800 feet), west (elevation, 1,850 feet), southeast (same elevation), uphill to crest (1,850 feet); changing to north, down to 1,700 feet, then sharp turn southwest at same elevation,

then south to 1,650 feet, and southwest to 1,500 feet, then down water course to 1,400 feet, up slight hill along banks of Yumurí River (1,450 feet), along bank of river to fork in road (elevation, 1,250 feet). Left branch of road follows telegraph line and goes to Veguita; taking right branch and following southwest, then west, uphill, and sharp turn to north to crest of hill (elevation, 1,450 feet), and on edge of cañon (75 feet deep), in which flows a small stream known as Río Pimienta, turning to west down sharp hill and across Arroyo la Tibe, changing to west, uphill, then southwest, when crest of hill known as Loma Región (elevation, 1,750 feet) is reached. Then west to elevation of 1,900 feet, changing to south to 2,050 feet.

Miles from Sabanilla.

9.0

9.8

9.9

10.0

10.1

Along ridge southeast (elevation, 2,100 feet); then sharp change to northwest (same elevation), uphill to 2,150 feet north, and then west along watershed (divide) (elevation, 2,150 feet), changing southwest down to 1,900 feet (this road through dense tropical growth and some yellow pine). The road now slowly descends general direction southwest (elevation, 1,750 feet), then changes to north (elevation, 1,400 feet), and continues north and northwest to elevation of 1,200 feet.

11.0

11.5

12.2

Changing south, a shack is passed on the right about 75 feet from road, which here is 850-foot elevation, changing then to the east (elevation, 800 feet) and again southwest.

12.5

Jojó Arriba is reached (elevation, 750 feet).

13.2

ROAD No. 36.

BARACOA—JAMAL—YUMURÍ RIVER.

General direction: SE. Distance: 21 miles.

IN GENERAL.

A fairly good dirt trail, in the dry season, with rough steep hills in places from Baracoa to Mata. From Mata to Yumurí the trail is very rocky in places.

IN DETAIL.

Leave the town via calle Real and camino Real at the southeast corner, passing Fort Matachín on the left and a pasture on the right.

Miles from Baracoa.

Crosses a small wooden bridge, turns to the south, and then to the southeast up a slight grade.

0.5

Miles from
Baracoa.

- Crosses Río Miel (good hard ford, 1.5 feet in dry season and 3 feet in wet season).
- 1.7 Passes through the village of Cabacú, turning to the south. (Here a trail leads to the east to Boca de Miel.)
- 2.2 Twice crosses the Miel River. (Good hard fords.)
- 2.7 Passes over a slight grade through rolling country, cultivated on both sides. (On top this grade a trail leads to the southeast to Sabanilla.)
- 5.0 Ascends a long hill which is called Cuchilla de Caguina, passes a store at the top, turns to the southeast, passes another store on the right, and turns to the east. (At this store a trail leads to the south to Sabanilla.)
- 5.8 Trail continues to the southeast. (Here a trail leads to the northeast to Roble.)
- 7.5 Passes over a high rocky hill on which is the town of Jamal, south of which a school is passed on the left, a stream is crossed, and the trail turns to the northeast. (Here a trail to the upper Mata River leads to the south.)
- 8.2 Passes a store on the right at Cuesta de Salas, turns to the east (here a trail to Roble leads to the northeast) and passes over high rough hills commanding the trail at short range.
- 10.7 Trail passes through fairly even country, crosses the Mata River on a small wooden bridge into the village of Güirito, turns to the northeast and passes between the Dos Hermanas, two very steep hills which command the trail from both directions. The trail is very steep and rough between these hills. (At Güirito trails lead to the south to Mariana and to the southeast to La Sierra.)
- 11.7 From 10.7 the trail follows the Mata River on its south bank, ascends a steep hill, and passes three stores. (Here a trail leads to the south to Mariana.)
- 12.0 Comes to Mata Bay and joins the trail around the bay.
- 13.0 Having crossed a small stream, following the beach of the bay to the west through Mata and passing the last store on the right, ascends a steep rocky hill to the northeast. (On top of this hill a trail leads to the east to La Sierra.)
- 14.0 Passes through a small wood, descends a steep rocky hill, crosses a small stream three times (Arroyo de Guandao), and passes through the village of Guandao to the northeast. (A trail leads to the south to La Sierra.)
- 14.5 Passes a high cliff on the right, through which a clean cut has been made by nature and where a trail goes to the south to La Sierra. This cliff is about 600 yards long.

Having passed through a small woods, comes out on Manglito beach, where it is very rocky. From here it becomes good hard sand.	Miles from Baracoa. 15.5
Following the beach, passes a few houses, a store, and a school at the village of Bariguá. (Between the store and school a trail leads to the south to Mandinga.)	16.7
Still following the beach to the east, crosses the mouth of the Bariguá River, the east bank being about 50 feet high, very steep and rocky.	18.0
Leaves the beach, ascends the side of a high cliff about 50 feet. This cliff is about 150 feet high and its base forms a sea wall. It is rough and dangerous.	18.2
Descends to the shore and on the left passes a warehouse and wharf. This warehouse is the beach end of a fruit tramway which leads from the cliffs above on the east side of the Yumurí River.	19.2
Comes to the Yumurí River at the foot of two high cliffs through which the river runs. Here crossing is made in small hand ferry, and the foot of Boruga hill is reached. Crossing is about 75 yards wide and very deep.	19.7
Having passed up a very steep rocky winding trail, Yumurí tramway station is reached. (From here trail leads to the east to Sabana.)	21.0

ROAD No. 37.

CANDELARIA—SAN LUIS—SAN LEANDRO—CAOBA.

General direction: S. Distance: 23 miles.

IN GENERAL.

From Candelaria to within 4 miles of San Luis is a cart road, where it becomes a good wagon road as far as San Leandro. From this place there is a difficult trail over mountains.

IN DETAIL.

The road runs south through forests.	Miles from Candelaria.
Pass through cane fields.	7.0
Cross railroad and enter San Luis. Leave San Luis on road west to Palma Soriano.	10.0; 11.0
At Las Chivas go southwest to San Leandro, then go south and cross stream, Río Yaguabo, then go up valley and cross mountain range and descend mountain to Caoba, entering the camino Real de la Isla. Good camp sites at San Leandro and Caoba for one battalion.	14.0; 16.0 16.5 21.0 23.0

ROAD No. 38.**GUANTÁNAMO—LOS CAÑOS.**

General direction: SE. Distance: 8 miles.

IN GENERAL.

An unimproved earth road. Passable for carts in dry season. Passes through level country consisting of pasture land with light timber. Southern end of road almost sea level.

IN DETAIL.

Miles from Guantánamo.	
	Leaves Guantánamo at south end of town, crosses
0.7	Guantánamo Railroad to east side.
1.5	Road branches, branch going southwest to Matabajo. Keep Guantánamo Railroad to west, Río Guaso to east.
7.5	Strike branch of Guantánamo Railroad at west arm of
8.0	the Guaso delta; follow same into Los Caños de Joa.

ROAD No. 39.**GUANTÁNAMO—INGENIO SOLEDAD.**

General direction: NW. Distance: 5.7 miles.

IN GENERAL.

An unimproved earth road. Passes through pasture and cane lands. Gently rolling.

IN DETAIL.

Miles from Guantánamo.	
	Leaving Guantánamo from northwest corner pass rural-guard barracks. Take camino Real de Santiago and take
2.0	road branching to north at first fork.
3.5	Cross Río Bano, pass through San Ildefonso estate,
4.0, 5.2	cross Cuba Eastern Railway, and come to Guantánamo
5.7	Railroad, and follow branch of same into Soledad.

ROAD No. 40.

JIGUANÍ ARRIBA—LAS CABEZAS—PERA—CALABAZAR.

General direction: SW. Distance: 5 miles.

IN GENERAL.

A fairly good trail.

IN DETAIL.

Leave the main road and go southwest through pasture; road level and good in dry weather, but very muddy in the rainy season. Miles from Jiguaní.

Las Cabezas; 6 or 8 houses scattered along road for distance of 0.5 mile. Land cultivated in tobacco. Rocky hills east and south, distant 0.5 mile. Road turns south for 0.5 mile, then goes southwest. 2.0

Road forks, left going to Cacao, main road crossing small stream at muddy ford and continuing southwest. 3.0

Pass through Pera; land cultivated in tobacco. Road turns west at the eastern edge of Pera. 3.5-4.5

Trail for Cuatro Caminos goes south 10 yards west of schoolhouse. 3.7

Road very muddy; almost impassable even in dry season. 4.0

Calabazar; road turns southwest and continues to Guisa. 5.0

ROAD No. 41.

BAIRE—LOS NEGROS.

General direction: S. Distance: 6.5 miles.

IN GENERAL.

For 2.5 miles this road is the same as the Baire-Bijagual road. The remaining distance, the road is a fairly good trail, very rocky in places, but passable for pack transportation. Passes through woods except in the vicinity of Llanada.

IN DETAIL.

Leaves the Baire-Bijagual road, turns southeast and enters wood. Trail becomes very rocky, ascends hill. Miles from Baire.
2.5

Turn southwest and enter grass land; Llanada. 3.5

Turn southeast and enter woods. Trail good. 4.5

Miles from Baire. Cross Arroyo Mogón and enter Los Negros, village of 12
6.5 houses. From Los Negros the following trails leave:
Northeast to Viajacas, good trail; 2.5 miles. Northwest
to Purial, on the Baire-Las Piedras road; fairly good
trail, 4 miles. Southwest to La Juba, fairly good trail, 2.5
miles. Southeast to Bijagual via Mogote, Yayal and
Manacas; very difficult trail, almost impassable.

ROAD No. 42.

BAIRE—RINCONADA—JIGUANÍ ARRIBA.

General direction: NW. Distance: 8 miles.

IN GENERAL.

A fairly good dirt road passable for lightly loaded wagons in the dry season. In the rainy season passable for pack transportation only.

IN DETAIL.

Miles from Baire. For 1 mile this road is the Baire-Ramonón-Las Piedras
1.0 road. Branches to the west and ascends a rocky hill.
2.5 Regajero, large house in a well cultivated spot; small
sugar mill (horse power) south of road.
4.0-6.0 Pass through vegaría La Rinconada; land well culti-
vated; range of hills parallel to road 800 yards south of
road.
6.0 Cross stream flowing northeast; road turns north
and passes through level pasture to Jiguaní Arriba.
6.0-7.0 Range of hills 400 yards west of road; level pasture
east.
8.0 Jiguaní Arriba. Road continues to Jiguaní. Trail
goes southwest to Las Cabezas, Pera, and Calabazar.

ROAD No. 43.

BAIRE—RAMONÓN (POSÓN)—PURIAL—LAS PIEDRAS.

General direction: SW. Distance: 8.5 miles.

IN GENERAL.

A good trail, passable in most places for bull carts. Some parts of the trail are very rocky and others muddy. Used to some extent for hauling timber out of the hills.

IN DETAIL.

Leave Baire from the south on good wagon road, going ^{Miles from Baire.} south.

Good road branches to the right (west) up rocky hill 1.0 to Regajero, La Rinconada, Jiguaní Arriba, and Jiguaní.

Road enters woods, becomes impassable for wagons, 2.0 turns southwest and continues in this direction through broken, wooded country.

Pass through Ramonón; country cleared for cultivation to a distance of 100 yards east of the road. Country very rough and rocky. Water very scarce; from wells blasted in the rock.

Pass through Purial. 5.0

Trail crosses this trail, going northwest to Rinconada 5.2 and southeast to Platanal and Los Negros.

Chupadores, small clearing with 1 house. Trail west 5.5 to Cacao and Cuatro Caminos. Rocky mountain trail 7.0 continues south to Riyto, and through Riyto to Las 8.5 Piedras. These points are in the high coast mountains, and there is no trail going south across the mountains. The trail from Chupadores to Las Piedras is very rough and is very little used.

ROAD No. 44.

CANEY—AGUACATE.

General direction: NW. Distance: 4 miles.

IN GENERAL.

A good trail, not passable for wheeled transportation. Branches from road 1 mile west of Caney and goes north 0.2 mile; passes through well-cultivated country 1.2 miles to Monte Oscuro, a canteen in the center of a well-cultivated valley. From here a trail goes west and joins the Aguacate-Ramón de Guaninao trail.

From Monte Oscuro the trail goes northwest through woods 2 miles. At this point a trail runs southwest to Ramón de Guaninao, leaving this trail 25 yards east of a small house in the edge of the woods. From here to Aguacate the trail goes through pasture, entering from the southeast.

ROAD No. 45.**JUAN BARÓN—AGUACATE.**

General direction: SW. Distance: 2 miles.

IN GENERAL.

A good trail, not passable for wheeled transportation. Leaves the Palma Soriano-Remanganaguas road opposite the most easterly canteen in Juan Barón, almost opposite the trail to Soledad, Condongo, Niguabo, and San Francisco. Goes south and enters Aguacate about the center of the district, between the Caney and Ceiba trails.

ROAD No. 46.**MAFFO—PASO SECO.**

General direction: SW. Distance: 2.5 miles.

IN GENERAL.

A fairly good trail, leaving Maffo about 0.5 mile east of the cemetery, going southwest through rough, broken country, cultivated in spots. Joins the Baire-Bijagual road 2.7 miles west of Bijagual.

ROAD No. 47.**MABIO ARriba—VIAJACAS.**

General direction: SW. Distance: 2.2 miles.

IN GENERAL.

A fair trail leaving Mabio Arriba at small stream 1.5 miles west of cemetery and going southwest through wooded country, joining the Baire-Bijagual trail 0.5 mile west of the trail to Los Negros, 5.2 miles southeast of Baire.

ROAD No. 48.

CEIBA—AGUACATE.

General direction: NE. Distance: 5 miles.

IN GENERAL.

A good trail, leaving Ceiba through gate 25 yards west of the canteen. Goes north and enters Aguacate at a stream in the western edge of the locality, 25 yards west of a canteen south of the road.

This trail passes through Ojo de Agua, a new cocoa plantation 1.2 miles north of Ceiba.

ROAD No. 49.

SAN LUIS—CABEZA.

General direction: NW. Distance: 6.5 miles.

IN GENERAL.

A wagon road for 2 miles beyond Burnes; trail from there to Cabeza

IN DETAIL.

Leave San Luis on north side, go west to cemetery, then go northwest. Miles from San Luis.

Crosses Río Grande River, continues northwest. 1.0

Schoolhouse; here one trail goes north to Santana; 3.0

other trail southwest; follow this latter 0.5 mile and take road which branches to northwest. 4.0

Road becomes trail; runs north through forests to Cabeza. 6.5

ROAD No. 50.

SAN LUIS—RÍO GRANDE—SAN LEANDRO.

General direction: SW. Distance: 8 miles.

IN GENERAL.

Trail practicable for ox carts.

IN DETAIL.

Leave San Luis on southwest side going southwest to Río Grande, taking trail to right, continuing on trail to San Leandro. Good camp sites around San Luis. Forest lands from Río Grande to San Leandro. Miles from San Luis.

6.0

8.0

ROAD No. 51.**GUANTÁNAMO—INGENIO SANTA CECILIA.**

General direction: E. Distance: 4 miles.

IN GENERAL.

An unimproved earth road, passable for wagons and carts in dry season. Passes through rolling pasture and cane lands.

IN DETAIL.

Miles from
Guantánamo.

- Leave Guantánamo from the east side over Guaso River bridge, turning north, keeping Cuba Eastern depot to right, and pass through gate on right-hand side of road. Go east through pasture land with sparse timber and cross Cuba Eastern Railway; then reach Santa Cecilia.
- 0.2**
- 3.0; 4.0**

ROAD No. 52.**DOS CAMINOS—ALTO SONGO.**

General direction: E. Distance: 7 miles.

IN GENERAL.

A fairly good dirt road passable for light-loaded wagons in dry season.

IN DETAIL.

Miles from Dos
Caminos.

- Leaves the town from the southeast corner and goes east over level country.
- 1.5** Cross the Guaninicúm River at good ford; water about 18 inches deep; approaches steep.
- 3.0** La Arana canteen. Road south to San Sebastián ingenio. Trail north to Banabacoa and Palmira. Main road continues east over good road, rocky in places, but passable for wagons.
- 7.0** Alto Songo. Enter town from west. Road continues through Songo to La Maya. Road south to Cristo.

ROAD No. 53.

BARACOA—CUCHILLAS—SABANILLA.

General direction: S. Distance: 8.6 miles.

IN GENERAL.

A rocky, difficult trail.

IN DETAIL.

Take Baracoa-Guantánamo trail until a point 4.9 miles from Baracoa is reached and take the Jamal trail running east. Go down sharp hill (0.2) 40 yards and follow along small stream; turn to northeast and along bed of stream, which is then left on right-hand side, and up steady hill to country store. From here turns to southeast and branches to left (75 yards from store); take right branch and follow along ridge running generally southeast up sharp, rocky hill and continuing along ridge. The trail is plainly marked and can not be lost. In event of branches keep to the right and follow trail past house near schoolhouse.

Miles from
Baracoa.

5.2

Schoolhouse; pass schoolhouse and next turn to right down steep hill to camino Real; thence along telegraph line to Sabanilla.

6.3
8.6

ROAD No. 54.

TRAILS NEAR CAPE MAISÍ.

IN GENERAL.

Sabana-Vertientes.—Trail good, but rocky in places. Passes through many banana plantations. Water and grass scarce. Only water supply is obtained from cisterns.

Jauco-Vertientes.—Trail crosses Río Jauco several times and follows the river bed. It is rocky and difficult. From Jauco Arriba to Los Jamales trail follows the Cana River. From Los Jamales to Vertientes the trail is very muddy and slippery. No grass; water can be obtained at Vertientes only.

Jauco Arriba-Jamal.—Steep ascent from valley of Río de Baracoa to La Bajada. River crossed several times and all fords good. The ford across the Río Yumurí is good; rock bottom. After crossing this river the trail winds through woods and is difficult passage in rainy season. From Capiro to Jamal the trail passes through a rich

farming district. In dry season this portion is good. Just before reaching Mosquitero the trail divides, one branch following bed of Mata River, the other parallel with river. These trails join later, but the river bed trail is better.

Jauco-Tacre.—A coast trail. No signs of water between Jauco and Cajobabo. Ascent to divide north of Loma del Esparto very steep and rocky. From Caleta to Punta de Yana is a good coast trail over hard sand. The following points are passed: El Torolicar, Jutial de Cajobabo, Salado (at the Río Jojó crossing), Sabana, Paso del Marrón, and Cascajal. At Tacre this trail joins the Baracoa-Guantánamo trail and telegraph line.

Mata Bay—Guandao—Sabana—Maisí.—Near the mouth of the Bariguá River is a narrow ford, about 5 feet wide, used at high tide, but the bottom is bad. Trail then climbs a steep and rocky hill and then follows down the other side. At low tide this portion may be avoided by passing around the cliff through the surf. From Bariguá River to the Yumurí the trail is along a cliff and is difficult. The Yumurí is crossed by a ferry. Beyond, the trail leads to top of a cliff 600 feet high. At top of cliff is located Boruga Hill, which commands the trail and was fortified by Spanish troops. From Sabana to point where Pueblo Viejo trail turns off the trail is good in dry season; thence to Cuesta del Palo trail is good and level. Between the Cuesta del Palo Hill and Cuesta del Chivo Hill is sharp-pointed coral rock, difficult for animals. From Cuesta del Chivo to Maisí the trail is excellent. There is no water on the plateau east of Yumurí excepting that found in cisterns at habitations; but at Cape Maisí, at the light-house, there is a large cistern of excellent water.

[illegible]

*Note: Four trails have
number 54*

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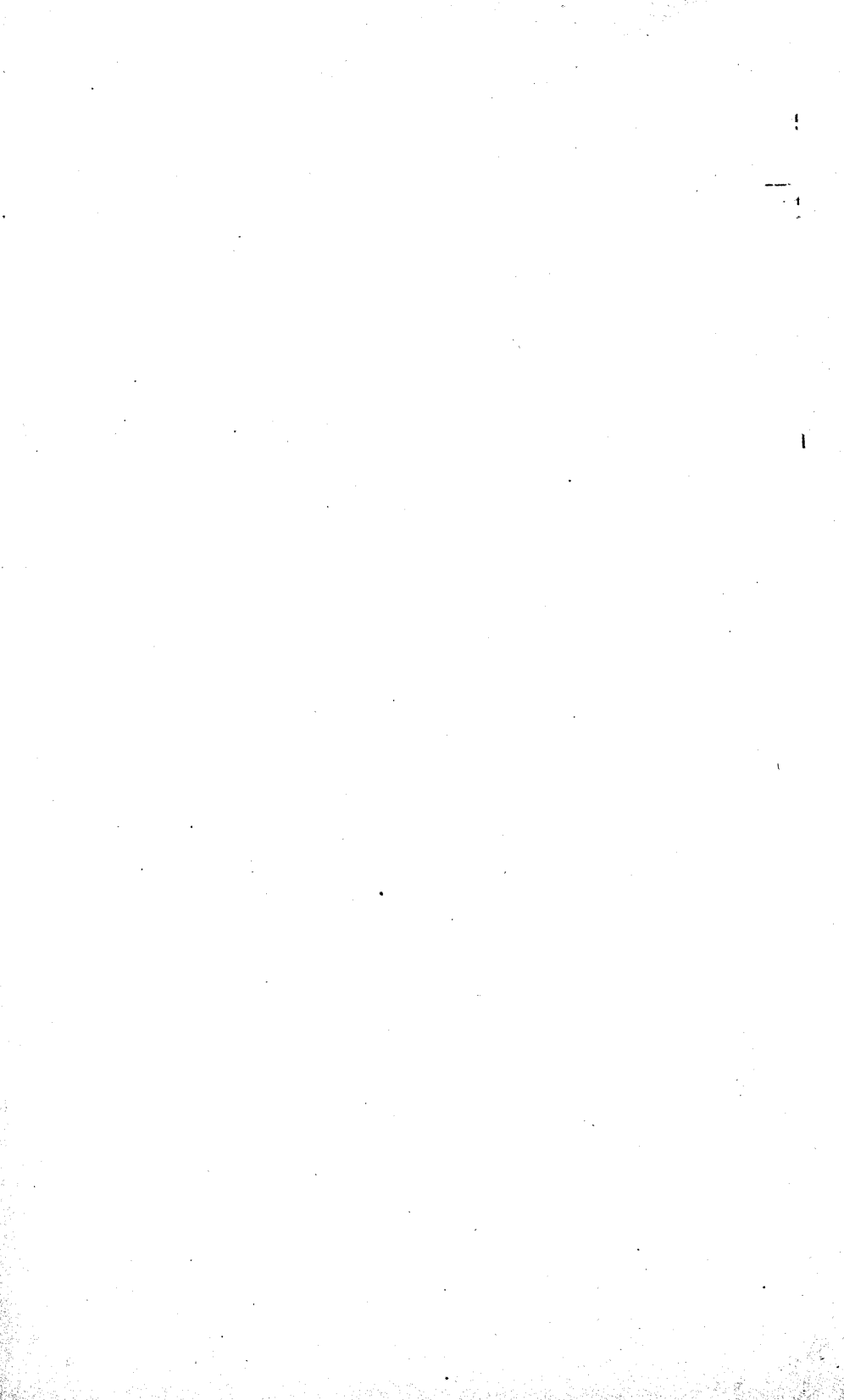
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